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# Perceptions and activities of agriculture education teachers in US institutions of higher education regarding internationalization of the agricultural education curriculum

Michael Jackson Akpan  
*Iowa State University*

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**Akpan, Michael Jackson, Ph.D.**

**Iowa State University, 1994**

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**Perceptions and activities of agriculture education  
teachers in U.S. institutions of higher education regarding  
internationalization of the agricultural education curriculum**

**by**

**Michael Jackson Akpan**

**A Dissertation Submitted to the  
Graduate Faculty in Partial Fulfillment of the  
Requirements for the Degree of  
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## CHAPTER I. INTRODUCTION

Agricultural education has constantly been changing in keeping with historical patterns and needs. Still, at no time in history has so much concern and attention been given to the changing needs of our society and the need to revitalize agricultural education curriculum to reflect not only national but also international needs.

Within a decade or two the major problems of agriculture have changed from local to state, national and international concerns. Agriculture in the United States has resolved many of the problems of production, but the markets for these products are located worldwide. To compete effectively in the international market place, United States students and citizens must be exposed to the agricultural, social, economic and political conditions of other countries. The tide of interest in international programs on college campuses has long been emphasized with the passage of The International Education Act of 1966, which declared:

The Congress hereby finds and declares that a knowledge of other countries is of utmost importance in promoting mutual understanding and cooperation between nations; that strong American educational resources are a necessary base for strengthening our relations with other countries; that this and future generations of Americans should be assured ample opportunity to develop to the fullest extent possible their intellectual capacities in all areas of knowledge pertaining to other countries, peoples, and cultures; and that it is therefore both necessary and appropriate

for the Federal Government to assist in the development of resources for international study and research, to assist in the development of resources and trained personnel in academic and professional fields, and to coordinate the existing and future programs of the Federal Government in international education to meet the requirement of world leadership.  
(Sanders and Ward, 1970, pp. 6-7)

The need for an effective international component in agricultural colleges was clearly stated in a report entitled "The University and World Affairs" (1961), written by a distinguished panel of educators under the chairmanship of J.L. Morrill, former president of the University of Minnesota:

The educational focus of most professional schools in American universities is overwhelmingly domestic for the strong vocational reason that they train students to practice professions in the United States, and frequently in specific states. In important ways, these principles of professional education have been outmoded by the growing American involvement with the rest of the world. A significant proportion of professional graduates can expect to find part of their careers in foreign areas, whether their profession be law, education public administration, business, medicine, public health, engineering or agriculture. If only on this utilitarian ground, the case is clear for an effective international component in the programs of the stronger professional schools. The case also rests on the wider grounds that American professions have the responsibility for the international aspects of their fields, that they need to understand other societies if they are to understand our own, and that many of the major problems of their fields are also found in other societies. (Agriculture and the University, 1965, p. 54)

It is true that most of the content of the standard academic disciplines in the West is Western-oriented. The infusion of non-Western material is essential to the process of universalization of academic disciplines and, in fact, to the testing and strengthening of theories advanced by the disciplines. It has been seen repeatedly, for example, that economic and social generalizations that may appear perfectly suitable for the society of the United States or Western Europe are found to be deficient when applied within the cultural context of Nigeria, Indonesia, or Peru (Harari, 1981).

This deficiency implies that not all the world's knowledge is contained within the United States. Many experiences and a significant amount of agricultural knowledge can be returned from overseas to enrich and enhance agricultural education programs within the United States. Apart from this, the involvement can improve the capability of agricultural educators who will be exposed to the international challenge.

According to Schuh (1988), "one of our problems is that we have such an introverted mind set that we are not even open to the possibility of having new knowledge come from abroad. If we were to develop a capability to work on understanding global agriculture, surely we would be more open to the possibility of new knowledge coming from abroad, and thus

better able to access it for our own use" (p. 13).

Schuh (1988) further stated: "We are missing a golden opportunity. There are many sources from which our farmers can obtain technical information on farming, and they do indeed take advantage of them. But there are very few sources from which they can obtain sound information on the international economy and society. We have an opportunity to fill that gap, and to do it for our larger, politically important farmers. We should have much larger and more effective programs in public affairs, international agriculture and the international economy" (p. 14).

According to Harman (1988), in a recently completed study by the United States General Accounting Office to identify how the United States' agricultural export performance could be improved, one of the things it suggested the United States needed to do is to develop more effective strategies for marketing agricultural products abroad. But how can such strategies be developed if United States citizens do not have adequate knowledge base about other countries?

The need for national competency in international understanding can be seen in our lack of language skills, the unacceptably low level of knowledge of international places, events, and issues, and the shortage of specialists who can manage our international affairs in both the public and private sectors (Dibiaggio, 1988).

Emphasizing the need for international understanding, The President's Commission on Foreign Language and International Studies issued the following statement in 1979:

"Our gross national inadequacy in foreign language skills has become a serious and growing liability. It is going to be far more difficult for America to survive and compete in a world where nations are increasingly dependent on one another if we cannot communicate with our neighbors in their own languages and cultural contexts" (p. 28).

After a year long intensive evaluation of foreign language and international studies in the United States' education system, the commission was profoundly alarmed by what they found: a serious deterioration in the country's language and research capacity, at a time when an increasingly international military, political and economic environment is making unprecedented demands on America's resources, intellectual capacity, and public sensitivity.

Writing in the Group Portrait: "Internationalizing the Discipline" (1990), New York University President John Brademas examined the United States' national problems as reflected in the Iran-Contra affair and stated the following:

As we Americans look to our place in the world of the twenty-first century, we confront some disturbing realities. For example, the congressional hearings of 1987 into the Iran-Contra affair raised deeply troubling



questions about the way we conduct our foreign policy. Certainly the hearings exposed an astonishing lack of knowledge on the part of our top decision makers about Iran, its society, religious traditions, and political system. The scandal surrounding the actions of the United States government in Iran is but the latest in a series of diplomatic and intelligence failures that have marred the past 40 years of American history, all lapses traceable to our ignorance of other countries and cultures. (p. 1)

In the spring 1987 issue of Educational Record, Brademas posed a challenge to colleges and universities by saying: "Our ignorance, which extends to countries around the globe, seriously compromises our position in the world. Colleges and Universities in the past 20 years have been partly to blame for this problem; they must now become part of the solution" (pp. 6-11).

While the involvement of colleges and universities is urgently needed, The President's Commission on Foreign Language and International Studies (1979) points out that, "if a sensitivity to other cultures and an increased awareness of world issues are to be the major goals for our schools, they will not be reached solely through the teaching of such subjects as social studies and foreign languages, crucial as these are. International content should be part of the teaching of all subjects, and within the capabilities of all teachers" (p. 49).

The aforementioned information suggests a continuing need for strong international dimensions to teaching and research programs in agricultural education colleges and universities. The need, if anything, is stronger today than it was a decade ago. This is because, today, agriculture in the United States faces some serious competition among world agricultural forces. Today more than ever, the successful farmers, ranchers, and managers in agribusiness are characterized by complex management decisions, with decision-making based on global perspectives. As a report by The American Council on Education issued in early 1980 indicates, evidence of such a competitive situation is perhaps most clearly seen when one views the economic and commercial life of the nation. The report noted the following:

Since 1960, the total value of United States foreign trade has grown from less than 10 percent to over 25 percent in gross national product. Twenty percent of the United States industrial output is for export. Forty percent of United States farmland now produces for export markets; about one-third of United States corporate profits are generated by international activity; and in recent years, four out of five new jobs in manufacturing have been based on foreign trade. In the face these international complexities, our national shortage of competent specialists also has become more apparent. Our vast responsibilities, both politically and militarily, call for cultural sensitivity and language competence, skills that were not so obviously needed in decades past. (Dibiaggio, 1988, p.3)

Obviously, the impact of international trade and export markets in the total economy, and the need to face the future from a global point of view suggests not only more emphasis on languages training and, more importantly, on acquiring some knowledge of, and sensitivity to other cultures (Burn, 1986).

The most recent call for this competence is made in the March 7, 1988, issue of U.S. News and World Report. That article indicated that the 21st century executive must be a global strategist as well as a master of technology, a politician par excellence, and a leader/motivator. "The U.S. cannot reclaim the unchallenged economic dominance it enjoyed in the 1950's and 1960's. Instead, the watchwords of the future are global interdependence" (p. 50).

The time has come to reverse our national decline into ignorance about the world and international affairs. In fact, such a turnaround is long overdue. According to Dibiaggio (1988), "those of us in the university world have a critical and central role to play if the nation is to be turned away from international illiteracy" (p. 2).

The necessity for a broader knowledge-base in language, cultural understanding, economic and political literacy underscore the need for educational vigilance. An ever-pressing need for a sound international education in agriculture, therefore, requires that more attention be devoted to effective curriculum planning.

### Statement of the Problem

The change that has swept the world in our century has altered the lives of nearly every person in it, or will soon do so. Today, agricultural education is affected by numerous global changes and issues. International changes involve cultural, economic, political, social and scientific issues. The rapidity of these changes require that educational modes be assessed and implemented in configurations possibly not previously conceived.

Unfortunately, according to College and World Affairs, in Harclerod and Kilmartin (1966), "these changes have not yet produced anywhere in corresponding magnitude the necessary adaptations in education. There has come into being a fateful lag between the circumstances of life in which men and women must live and their inner preparation to do so wisely and effectively (p. 4).

Sounding the warning in a special supplement to the Saturday Review of August 20, 1966, William Marvel-President of Education and World Affairs stated:

It is late in the day to be arguing the case for giving American undergraduates- all American undergraduates some sense of the larger world community that will press in on them as adult citizens. This case has been presented repeatedly, most of the issues have been defined. The challenge is there for all to see who care to look. But have the colleges and universities picked up the challenge? (p. 56)

The literature indicates that United States' agriculture has increasingly become part of an international food and agriculture system. In addition, United States' international interdependence has increased through the growth in international trade.

The President's Commission on Foreign Language and International Studies (1979) recognizes international trade interdependence by stating the following:

International trade has become more important to our economic well-being than ever before. Many American companies now expect that more of their growth in the next decade will come from foreign markets than from domestic operations, but serious obstacles stand in the way. While some involve such factors as low rates of productivity growth and domestic inflation, it is the Commission's view that one serious barrier to American business is its lack of foreign language and area expertise. (pp. 125-126)

For today's agricultural education graduates, who are preparing to enter the 21st century, little seems more certain than the quickening impact on their lives of the rest of the world. Some of the issues agricultural education graduates will be facing are approachable only on a global basis. Even if we leave aside the economic and political concerns, as tied as they are to forces beyond the national borders, the issue of serious environmental degradation that will face humanity generally cries out for international approaches. The serious issues of disease control such as AIDS call for a global perspective and international measures. A global perspective

will also be required in any serious attack on the problems that illegal drugs present to our society (Dibiaggio, 1988).

For the above reasons, therefore, internationalization of the curriculum in agricultural education should be viewed as a priority and a means to meeting both the changing world agricultural needs and in developing enlightened citizens for the kind of world we will face in the 21st century.

As evidenced in the literature, many critics of American education agree that an understanding of the culture, politics, language, economy, religion, and geography of foreign lands is essential to the education of American students. The same critics agree that knowledge of these subjects is woefully lacking in college graduates. They also agree that future agricultural education programs must have both domestic and international emphasis. Anderson (1966), emphasized this point by saying, "a university whose curriculum is not universal hardly lives up to its name" (p. 51).

The problem now is how to answer the challenge of internationalizing the agricultural education programs. One of the first steps in answering this question is to determine the current situation in institutions of higher education and to gather perspectives from agricultural education teachers. One of the objectives of this study, therefore, was to identify those factors which agricultural education teachers

in U.S. institutions of higher education feel are critical to adding an international perspective to the agricultural education curriculum.

The real issue is whether an ever-growing proportion of our agricultural education graduates are educated to a more thorough understanding of the forces that are shaping their careers and their world. The dream of internationalizing the agricultural education curriculum lies with the agricultural education teachers. Based on the above understanding, there is need to study the perceptions and activities of agricultural education teachers regarding internationalizing the agricultural education curriculum.

#### Purpose of the Study

The purpose of the study was to examine the perceptions held by agricultural education teachers in Departments of Agricultural Education in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum. A secondary purpose was to identify the activities conducted by agricultural education teachers in U.S. institutions of higher education to add international perspective to the agricultural education curriculum.

### Objectives of the Study

The specific objectives of the study were as follows:

1. Examine the perceptions of U.S. agricultural education teachers regarding internationalization of the agricultural education curriculum.
2. Identify activities conducted by agricultural education teachers to add international perspective to the agricultural education curriculum.
3. Identify those factors which agricultural education teachers feel are critical to adding an international perspective to the agricultural education curriculum.
4. Identify demographic characteristics of agricultural education teachers.
5. Compare selected variables to the demographic characteristics of agricultural education teachers.

### Summary

Changes at the international level are now all interlinked with changes at the national levels. In today's world, politicians, business leaders, students, and citizens are ill-equipped if they do not understand international political events, markets and the interdependence of the international environment.

According to Reich (1991), "in a very few years, there will be virtually no way to distinguish one national economy



from the other. Economically, there will be no national products or technologies, no national corporations, no national industries. Even today, national borders no longer define our economic fates" (p. 208).

It remains persistently clear, therefore, that a level of agricultural education to match the problems agriculture and the society face throughout the world depends on a constant search for new knowledge. The challenge to agricultural institutions in the 21st century is the challenge of educating or of being educated on both national and international events affecting agriculture worldwide.

In recognition of this challenge, Schuh (1988) stated:

In our resident instruction programs, we need to recognize that most of our students will either work abroad, work for a company that has a strong international export commitment or that experiences serious competition from abroad, or work for a government agency with a strong international dimension to its programs. (p. 7)

To be effective in such future employment, agricultural education students need to know more about the international economy, political, and cultural systems. In Schuh's opinion, "understanding the principles of a close economy is not sufficient, nor is being knowledgeable about domestic politics" (p. 7).

In conclusion, therefore, if U.S. agricultural education institutions are to answer the challenges to world survival, and if they are to help students truly understand these

international events, they must develop and teach a new curriculum--a curriculum that includes international issues.

#### Definition of Terms

Agriculture Education Teachers: This term is used in this study to refer to the individuals with professional skills and knowledge in the educational processes for teaching Agricultural Education in U.S. institutions of higher education.

Curriculum /Program: These terms are used synonymously. They refer to the reconstruction of knowledge and experience, systematically developed under the auspices of the school or university, to enable the learners to increase their control of knowledge and experience (Tanner and Tanner, p. 43).

Internationalization of the Curriculum: The infusion of international dimensions, content, and considerations into the teaching, research, extension, and public service functions of the college to enhance their relevance in an interdependent world (Hanson and Noel, 1989, 17).

International/Global Education: These terms are used synonymously. They refer to those forms of education formal or informal, which enhance the individual's ability to understand his or her condition in the community and the world. It includes the study of nations, cultures, and civilizations, with a focus on understanding how these are all

interconnected and how they change, and on the individual's responsibility in this process. It provides the individual with a realistic perspective on world issues, problems and prospects, and an awareness of the relationships between an individual's enlightened self-interest and the concerns of the people elsewhere in the world (1979 Task Force on Global Perspective: In Collins and Zakariya, 1982, p. 4).

Perceptions: A perception is a judgement about a concept or issue at a given period of time. The data collected is reported in an average of professional judgments of those surveyed, as represented by the mean score of the respondents to the questionnaire items.

## CHAPTER II. REVIEW OF LITERATURE

### Introduction

The greatest waste of this nation is its waste of talents. If we could only fully utilize our talents, there would be no limit to our progress. The opportunities to obtain an education broad and complete, fitted to the demands of the present time, must be provided. (Charles Van Hise, In: Educating for a Global Perspective, 1989)

In the decade of the 1990's and as we look toward the 21st century, one of the major challenges facing U.S. institutions of higher education is the need to include international education in their curricula to broaden students awareness of cultures other than their own.

Much has been written about the need to incorporate international perspectives into education to enable students to understand and benefit from the increasing interdependence of the world's cultures, economies, and political relationships (Alger and Harf, 1986; Goodlad, 1986; Knierp, 1986; Woyach and Remy, 1989).

The President's Commission on Foreign Languages and International Studies (1979) warned that: "if the 47 million children in our schools are to function successfully as adults in the next century they must grow up with more knowledge about our interdependent world, keener awareness of other people, and greater sensitivity to those peoples' attitudes and customs" (p. 48).

Describing the integration of international education into the teacher education program at the University of South Dakota, Hadley and Wood (1986) stated that "the primary goal is to help students and faculty develop the ability to make intelligent decisions regarding our international system and the world" (p. 58-59). They further concluded as follows:

A nation requires a cadre of people who know about other peoples' cultures. If the United States is to survive and prosper in this interdependent world, it certainly needs teachers, professionals in business and government, lawyers, farmers, ranchers, scientists, and technicians who can respond intelligently to the global challenges and opportunities faced in the years ahead. We need a general citizenry which is conscious of the world in which we live and one which expresses global concerns at the ballot box as well as in everyday life. (p. 62)

According to James O. Freedman, the president of the University of Iowa, "the need for citizens and professionals with an understanding of other nations, cultures, literatures, modes of thinking, and languages is urgent. By helping our students to comprehend the complexities and subtleties of the international environment, a university can make a special contribution to meeting this national need" (In: Arum, 1987, p. 18).

Eckert and Nobe (1983) stressed this point by saying that global perspective and an understanding of conditions in the rest of the world are absolutely essential prerequisites for responsible future citizenship. They concluded, "it is

imperative that these be central to the content of a university education" (p. 36).

In his article A Global Perspective for Agricultural Education, Martin (1989) stated:

Students need a global perspective if they are to be functional and vital citizens of the world. The truly educated person in today's world cannot function within narrow perspectives. We need citizens who have a knowledge of world agriculture and its effect on trade, simple economics of world agriculture, geography and the use of products from around the world. For the economics of agriculture to work in this world, all citizens need to have an understanding of the cultural differences and similarities of all those involved. (p. 4)

Based on the above literature, global or international education is not an ideology. It is a reflection of the fact that we are all members of a single human species living together in an increasingly interdependent world. As explained by Collins and Zakariya (1982), recognizing our common citizenship in the world community does not mean that we must repudiate our national identities. A truly international education, therefore, consists of the knowledge and attitudes that enable us to better understand and appreciate our role and responsibilities as citizens of our local communities, our nation, and finally, of an increasingly complex international society.

Agricultural education teachers have a great responsibility to helping students broaden their awareness of

cultures other than their own. In the words of Loeslie (1987), "An understanding of the greatest industry we have known cannot be complete without focusing the attention of American education on the world scene" (p. 13).

The rest of the literature in this review will deal with: the rationale for internationalizing the curriculum, lagging efforts in internationalizing the curriculum in U.S. institutions, factors that may influence adding an international perspective to the curriculum in U.S. institutions of higher education, means of adding international perspectives to a university curriculum, and the commitment needed to sustain curriculum internationalization.

#### **The Rationale for Internationalizing the Curriculum**

Some of the reasons why universities need to internationalize their curricula will be discussed under the following sub-headings: general awareness of international issues; economics and economic competitiveness; relevance of educational programs to foreign students' interest; and current /future job opportunities.

##### **General awareness of international issues**

There is no need for an extensive discussion for the reasons why U.S. institutions of higher education need to internationalize their curricula. Indeed, according to

Schechter (1990), "there is almost a national outcry for us to take some drastic steps to cope with at least the most widely acknowledged of our failings, including our students' ignorance of geography and lack of a sense of even the most recent history" (p. 14).

The Editorial-Change Magazine (1978), acknowledged that "America's young face a set of new national and international circumstances about which they have only the faintest of notions. They are, globally speaking, blind, deaf and dumb; and thus handicapped, they will soon determine the future directions of this nation" (p. 12).

Studies about television programming suggest that Americans receive less exposure to foreign countries than any other people in the world with the possible exception of China (Keller and Roel, 1980).

According to Lurie (1982), a Gallup Poll taken in 1977 showed that 50 percent of all Americans did not know that the United States must import any petroleum at all. Less than 10 percent knew the United States imported one-half of her energy needs.

Perhaps the most significant study on this subject was the one carried out in 1974 and published by the U.S. Office of Education in 1979 under the title Other Nations--Other Peoples. The study examined some 600 students in fourth, eighth, and twelfth grades in 27 states. It revealed that no



less than 61 percent of the twelfth grade students thought that non-European countries were members of the Common Market, and that about a quarter of the eighth and twelfth graders believed that either China or India extended into Europe (Pike and Barrows, 1979).

Hechinger (1979) indicated that in a recent UNESCO education study of 30,000 ten and fourteen-year-olds in nine countries, American students ranked next to the bottom in their comprehension of foreign cultures.

A nationally administered test to selected college seniors designed to assess knowledge and perceptions about global relationships revealed a considerable lack of knowledge about such matters. About two-thirds of the scores fell between 38 percent and 62 percent correct (Educational Testing Service Survey (In: Education and the World View (1980)).

According to Black (1980), the dean of an excellent undergraduate professional school in international affairs reported that students entering their graduate program had all failed a geography test question that asked what countries border on the Soviet Union. The dean said the Soviets would be pleased to learn that countries such as Thailand and Pakistan were their contiguous neighbors.

Based on this inadequate or lack of knowledge/awareness of international issues and cultures by U.S. students and citizens, Kniep (1985) concluded:

Global education is a necessity for everyone. It would therefore be difficult to deny the importance of an educational program which attempts to introduce students and citizens of any country to skills and competencies which are essential to understanding and eventually participating in an increasingly complex and interconnected world. (p. 18)

The goals of such global or international education according to Lamy (1983) should include:

(1) A recognition and appreciation of the complexity and constantly changing nature of the world's political, economic, and social systems. This should include an understanding of the positive and negative implications of interdependent and dependent relations between nation-states and their transnational actors; (2) an understanding and appreciation of basic human commonalities and differences; (3) an awareness of how perceptions, values, and priorities differ among various individuals, groups, organizations, and cultures; and (4) a commitment to the development of analytical and evaluative skills that will enable individuals to respond creatively to local, national, and international events and participate effectively at those respective levels.

#### Economic and economic competitiveness

Technological advances have made the world in which we live very small. The economic future of many countries have become entangled. According to William, Moore, and Elliot

(1992), these trends increase the need for our students and future leaders to develop an awareness of the interdependent elements in the world economy.

The President's Commission on Foreign Languages and International Studies (1979), estimated that American investment abroad is around \$300 billion, and foreign investment in the U.S. is an estimated \$245 billion. The 13 largest American banks now derive almost 50% of their total earnings from overseas credits. Approximately 35,000 American companies have overseas operations, and 20,000 concerns export products or services to foreign markets. They estimate that each \$1 billion of exported manufactured goods creates at least 30,000 jobs in the U.S. provides yet more evidence of our growing economic interdependence with the rest of the world.

Lambert (1980) indicated that in a survey of the presidents and chairpersons of 55 firms from Fortune's top 100, every respondent agreed with the statement: "Most business firms will be affected directly or indirectly by economic and political developments in the international scene, and most businessmen will therefore need the ability to understand and anticipate these effects". Seventy-seven percent of the respondents indicated that "Knowledge of the economy, politics, business practices, and culture of foreign countries" or a foreign region was very important, and 70

percent gave the same response concerning a working knowledge of a foreign language. The remainder, 23 percent and 30 percent, respectively, said it was important--that is, nobody checked the "not important" column. All of them thought that a knowledge of foreign countries would be of growing importance, and 85 percent believed that language skills were likely to grow in importance.

Governor Gerald L. Baliles of Virginia, Chairman of the Non-Governmental Association, warned that "a new age has arrived in foreign trade. But in 1989, the United States is not well prepared for international trade. We know neither the languages, the cultures, nor the geographic characteristics of our competitors (In: Dillin, 1989, p. 8).

Governor Baliles puts his call for action into perspective with a story from his own state as follows: In 1987, while traveling in the Far East, he noticed that Asians considered chicken feet a delicacy. The feet are deep fried as hors d'oeuvres, or boiled in soup. In Hong Kong, Taiwan, and other countries, they are in short supply. Virginia is a major chicken-producing state. Baliles returned home and telephoned poultry companies with an idea of marketing chicken feet, which were regarded as a waste product in Virginia, to customers in Asia. Today, Baliles says that, Virginia companies export 40 tons of chicken feet to Far East. He concluded: "what you have an abundance of can make it

possible to make a profit in the marketplace. But you must have the sensitivity to those opportunities" (p. 8).

To exploit the advantages, the U.S. needs citizens who can move about comfortably in other nations, who understand other cultures, and can communicate in other languages. This is necessary because as Baliles says, "it is no good trying to sell something people don't want or need. You can't sell toasters in a country that doesn't eat toast" (In: Dillin 1989, p. 8).

According to John Brademas in Group Portrait (1990):

The powerful dynamics of the new, globalized economy mean, that the era of American economic hegemony is over. As we become increasingly dependent on international trade, we need people trained to work effectively with Japanese business councils, Arab oil ministries, Swiss banks, European agricultural officials, and Third World governments. The economies of the world's nations are now so interdependent that if we in the United States fail to follow developments elsewhere, we shall lose our competitive advantage, in certain fields, we already have. (p. 1)

Simon (1990) added that, the economic and trade challenges--especially in the Pacific Rim--are equally great: "Traditional notions of economic and political self-sufficiency no longer apply. To a large degree, our future prosperity and security is tied to our ability to communicate within a vast community of nations" (p. 7).

Relevance of educational programs to international students

The United States of America has for many years been involved in international educational programs for a number of countries. She does this through her agencies such as the U.S. Agency for International Development (USAID). The number of foreign students coming to study in the United States has continued to increase. Patterson (1981) quoted the Institute of International Education census report for 1980-1981 as saying that there were about 312,000 foreign students attending U.S. institutions as of then, and of this number, eighty percent (80%) were from Third World countries. The report noted that the foreign student population could increase to more than one million by the early 1990's.

The rapid influx of international students into American universities has implications for curricula changes if the needs of these students and those of their countries are to be served educationally and professionally by the education given to them.

In a study on the Needs of Foreign Students from Developing Nations at U.S. colleges, Lee, Abd-Ella and Burks (1981), after noting that many developing countries today are questioning the suitability of western technology, education, and culture for their countries, found that not only have U.S. institutions of higher education been indifferent to the adjustment problems of foreign students, they have also given

little attention to such problems as the relevancy of American educational programs for the developing world. The investigators also reported that in every category of needs studied, needs were not satisfied to the level of students' expectations.

In a review and evaluation of research on foreign students in the United States, Spaulding and Flack (1976) found the following:

- (1) Only in relatively few cases have U.S. faculty members changed their teaching or benefitted in major ways from the presence of foreign students on campus;
- (2) On the whole, universities and colleges are organized in traditional academic fashion, with little change being introduced as to structure, number, or the fields of interest of foreign students.

Banks (1989) noted that even though the United States is made up of many different racial, ethnic, religious, and cultural groups, the school curricula, textbooks, and other teaching materials have rarely given attention to the contributions of any non-Anglo group.

According to Eckert and Nobe (1983), the international development work of some major universities, which involves some highly talented individuals, is rarely related to the educational work done with undergraduate and even graduate students at the home base university.

While the above literature indicates a perception that Americans do not need internationalization in their schools, Interpaks Interchange-a publication of the University of Illinois at Champaign-Urbana, highlighted the fact that knowledge transfer between cultures is a two-way street by quoting Benjamin Franklin, who wrote the following:

At the treaty of Lancaster, in Pennsylvania, anno 1744, between the Government of Virginia and the Six Nations, the commissioners from Virginia acquainted the Indians by a speech, that there was at Williamsburg a college with a fund for educating Indian youth; and that if the chiefs of the Six Nations would send down half a dozen of their sons to that college, the government would take care that they be well provided for, and instructed in all the learning of the white people.

The Indians' spokesman replied:

We know that you highly esteem the kind of learning taught in those colleges, and that the maintenance of our young men, while with you, would be very expensive to you. We are convinced, therefore, that you mean to do us good by your proposal and we thank you heartily. But you, who are wise, must know that different nations have different conceptions of things; and you will not therefore take it amiss, if our ideas of this kind of education happen not to be the same with yours. We have had some experience of it; several of our young people were formerly brought up at the colleges of the northern provinces; they were instructed in all your sciences; but, when they came back to us, they were bad runners, ignorant of every means of living in the woods, unable to bear either cold or hunger, knew neither how to build a cabin, take a deer, nor kill an enemy, spoke our language imperfectly, were therefore neither fit for hunters, warriors, nor counsellors; they were totally good for nothing. We are however not the less obligated by your



kind offer, though we decline accepting it; and, to show our grateful sense of it; if the gentlemen of Virginia will send us a dozen of their sons; we will take care of their education, instruct them in all we know, and make men out of them. (p. 8)

Christensen (1988) concluded: "it is becoming increasingly apparent that our professional schools and our universities cannot ignore the accomplishments, the cultures, and the needs of other inhabitants of this earth" (p. 28). As Reich (1991) concluded, "the creativity of our response may well determine the future health, wealth, and happiness of this country" (p. 19).

#### Current and future job opportunities

Most of the agricultural education graduates will be working in industries other than agriculture, and many of these graduates will work in countries other than the United States.

A survey of the top fifty food companies in the United States suggest that they are already global in nature or rapidly moving in that direction. It seems appropriate, as the food industries surveyed suggested, that the curriculum of university students in this area be internationalized. Sixty-four percent of these food companies would give a preference to a prospective employee who had some international experience compared to an equally qualified individual without

this experience. The most important finding of the survey suggested that 86 percent of the companies thought they will need an international perspective to remain in the top 50 food companies 10 years from now (Ockerman, 1990).

At the American Agricultural Economics Association's 1988 annual meeting, a symposium was held that focused specifically on the international aspects of agricultural economics curricula. Participants in this symposium were not only faculty of Land Grant institutions, but also representatives of large agribusiness firms, an international development institute, and the USDA. In general, it was agreed that current curricula endow the student with a good technical and analytical ability to deal with the traditional problems of agriculture, but that graduates of agricultural economics programs must increasingly compete with graduates of other degree programs. Such competition occurs mostly on a basis of human relation skills, cultural sensitivity, institutional awareness, and communications abilities, in addition to technical skills which is only one of the desirable qualities that employers seek (Kellogg, 1988).

Sharp (1988) noted that the USDA had recently begun to hire more and more graduates of liberal arts and general economics programs than before. Agribusiness firms similarly look to liberal arts, economics (other than agricultural), and business management graduates at an increasing rate.

According to Hammig and Rosson (1989, p. 37), an informal survey of agribusiness CEO's revealed that the breadth of prospective employees' education is as important, if not more so, as technical depth. Here again the importance of communications skills and cultural and institutional awareness were emphasized.

Wilson (1992) acknowledged that agricultural graduates need and deserve global education for a broader, yet complementary, analytical framework which will equip them for grappling with the major agricultural and natural resources issues they will confront in their careers.

Hammig and Rosson (1989) elaborated the point as follows:

The United States agriculture has assumed an important international dimension to a degree that did not exist only a few years ago. Most of the economic forces buffeting agriculture are not unique to the sector, so formal training in agriculture is no longer a pre-requisite to employment in agribusiness. These occur at a time when the image of agriculture in the eyes of many potential students is not attractive and enrollments in colleges of agriculture are declining. (p. 37)

They concluded that "global interdependence is a fact of life and dealing with it is a responsibility we cannot escape. To ignore the critical importance of internationalizing the curriculum in agriculture is to ignore the importance of the agricultural industry and our future" (p. 36).

**Lagging Efforts to Internationalize the Curriculum  
in U.S. Institutions of Higher Education**

No child should grow up to adulthood in America without realizing the promise and the peril of the world beyond our borders. Progress made in teaching about world affairs must not lag behind progress made in other areas of American education. .  
(President Lyndon Johnson, 1966. In: To secure the blessings of liberty, 1986)

Despite the numerous benefits that may be derived from internationalizing a university curriculum, various authors are concerned that schools are not adequately preparing students for the challenges of today's changing world nor the challenges of the 21st century (National Task Force on Education and the World View, 1981; Southern Governors' Association, 1986; Soedjatmoko, 1984; and The Study Commission on Global Education, 1987).

Hammig and Rosson (1989) observed that: "the marketplace has changed substantially; but we have failed to expand the training we offer to reflect the breadth of markets in which our students will be required to compete" (p.37).

Schuh (1988) says that U.S. institutions are not producing the knowledge students need to find their ways in today's changing and increasingly competitive world. "We are not giving our students the knowledge they need to compete in that world, and we are not giving our various constituents the knowledge they need to compete and thrive" (p. 1). As warned

by Lamy (1983), the failure of U.S. educational institutions to anticipate and respond to these global circumstances is a very crucial issue.

According to Colyer (1993):

Relatively few universities require any language training or exposure to international issues. Many do not even provide very much of an opportunity for student exposure to international issues. In the majority of our institutions the typical graduate with a B.S. degree probably still knows relatively little about the world in which we all must function and, thus, does not appear to be prepared to meet the global challenges that most will be facing in their professional careers. (p. 46)

A major survey of business-school graduates, conducted in 1977, showed that some 75 percent of recent Ph.D.s and D.B.A.s had taken no international courses and that another 10 percent had taken only one international course (Lurie, 1982, p. 418).

The American Council on Education in Kellogg (1984) observed that, about three percent of all undergraduates and less than one percent of the college-aged group in the U.S. is enrolled in any courses which specifically feature international issues or areas (p. 19).

An Eastern European historian points out that on a tour of the United States, visiting a variety of universities and colleges, he was surprised to find none offering courses in Eastern European history, only in Russian history. He said it is also an awful situation that one out of 250 or 300 U.S.

college students might have taken only one course related to Asia or Africa (Quinn, 1980).

According to the analysis of the total number of U.S. students spending an academic year abroad in 1976, Europe and Canada has 83.9 percent, Latin America has barely 7.8 percent, 7.4 percent for Asia, and Africa has 0 percent, and yet 76 percent of the world's population live in non-Western countries; 58 percent live in Asia and one-quarter of the entire world's population lives in China (Magofuku, 1981).

The National Governors' Association (NGA) report that surveys the efforts of the 50 states to improve international studies concluded that: "As important as these good ideas and valiant efforts are, they aren't nearly enough to effect widespread change" (Dillin, 1989, p. 8).

According to The Chronicle of Higher Education (1981, April), The Council on Learning's "Education and World View" found that only about 200 of the 3,200 institutions of higher education had at least rudiments of an adequate international education program. They further observed that, the vast majority of the country's 8 million undergraduates of traditional college age have only slight exposure during their college years to global issues.

Collins and Zakariya (1982) indicate the following:

Traditionally, what American students have learned about the world beyond their own borders they have learned in high school

history, social studies, or literature classes. This piecemeal learning does not add up to global education-it is both too little and too late. (p. 3)

Although international education programs prepare students for citizenship in a world in which the economic, political and socio-cultural linkages between nations are increasing in scope, Lamy (1983) says that the programs have not been systematically or routinely endorsed by school administrators and teaching faculties in the United States.

"Advocates of global education programs are still on the outside. Educators interested in integrating global themes and concepts into the precollegiate and university curriculum must "sell" their ideas as special programs or electives" (p. 5).

Remy (1980) warned that:

The Global interrelationships that substantially affect the lives of all U.S. residents have gone far beyond traditional diplomatic negotiations and distant military confrontations. Our proliferating ties to nations, communities, peoples and events in other parts of the world affect the quality of our air and water; the price of sugar, coffee and gasoline; the size of our armed forces; the amount of taxes we pay; the levels of employment and inflation...We are only beginning to appreciate the impact of this change on our lives as citizens and on the task of citizenship education ...It may involve, for the first time in human history, not only an awareness of physically proximate neighbors but also a capacity on the part of all citizens to perceive and understand local/global linkages. (p.67)

Emphasizing the role of education in international understanding, Thomas (1979) concluded that "if this century does not slip forever through our fingers, it will be because learning will have directed us away from our "splintered dumbness" and helped us focus on our common goals" (p. 174).

### Factors that may Influence Adding International Perspective to the Agricultural Education Curriculum in U.S.

#### Institutions of Higher Education

##### Historical factors

The United States has a long history of isolationism and suspicion of foreign educational influences. According to Arum (1984):

Thomas Jefferson, perhaps, best epitomized this American distaste for foreign educational influences when in 1785 he wrote to a friend, "It appears to me that an American coming to Europe for education loses in his knowledge, in his morals, in his health, in his habits, and in his happiness... the consequences of foreign education are alarming to me as an American".

Ten years later George Washington criticized Americans studying abroad with equal vehemence, "it is with indescribable regret, that I have seen the youth of the United States migrating to foreign countries, in order to acquire the highest branches of erudition, and to obtain knowledge of the sciences". (p. 13)

Gardner (1990, p. 9) explained that, for generations the United States was preoccupied with the internal problems of settling a vast continent and creating a nation. United



States self-sufficiency in natural resources and enormous internal markets made it uncommonly independent of the rest of the world. Besides, United States was bordered on the east and west by two huge moats, which, for much of the history, were formidable barriers breachable only by long, dangerous, and tedious travel. This tradition of independence was created and sustained in the name of freedom from what the founding fathers called "entangling alliances".

It is perhaps not so surprising as noted by Ross (1980), that in 1918 Iowa passed a law banning the speaking of any language other than English in the state, i.e., in public, private, denominational or other similar schools...in public places, on trains, and over the telephone and in all public addresses (Ross, 1980).

It is also not surprising as observed by Arum (1984) that, "U.S. schools and universities reflect this historic American attitude towards foreign training, ideas, people and languages" (p. 15).

But according to Gardner (1990), "today the world is not easily kept at bay. Whether we like it or not, the United States is in the throes of a vast adjustment to a world in which our products no longer dominate world markets, but instead must compete vigorously with those of other nations" (p. 8).

Harf in La Chance (1981) explained this in the following words:

A nation's welfare depends in large measure on the intellectual and psychological strengths that are derived from perceptive visions of the world beyond its own boundaries. On a planet shrunken by the technology of instant communications, there is little safety behind a Maginot Line of scientific and scholarly isolationism. In our schools and colleges as well as in our public media or communications, and in everyday dialogue within our communities, the situation cries out for a better comprehension of our place and our potential in a world that, though it still expects much from America, no longer takes American supremacy for granted.  
(p. 18-19)

The National Commission on Excellence in Education emphasized the consequences of these new realities in its 1983 report, A Nation at Risk:

The time is long past when America's destiny was assured simply by an abundance of natural resources and inexhaustible human enthusiasm, and by our relative isolation from the malignant problems of older civilizations. The world is indeed one global village. We live among determined, well-educated, and strongly motivated competitors. We compete with them for international standing and markets, not only with products but also with ideas of our laboratories and neighborhood workshops...These developments signify a redistribution of trained capability throughout the globe. Knowledge, learning, information, and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier.  
(p. 6-7)

Today, far more than any time in our history, what we do affects other nations and what others do affects us. To secure our interests we must bargain, persuade, cajole-in short, draw upon all of the international knowledge, skills and competence at our disposal (American Council on Education: In Kellogg, 1984, p. 19).

As we look towards the 21st century, Reich (1991) reminds us that, while the success of our institutions will depend on the degree to which they will be willing to redefine their audience and adapt their procedures, the educational health of the nation will be a function of the number of initiatives that will emerge in the next decade. But on the whole, the result will be a reshaping of our educational maps to a form that will be truly globalized and nationally successful.

Winston E. Turner is quoted in Collins and Zakariya (1982) as saying the following:

We have to accept the fact that we are part of a family, part of a state, part of a nation. As Americans, we need to understand, too, that there is more to us than that. Because nations, cultures, and people are not isolated from each other and have functioned interdependently for centuries, it is high time we approached learning about them as participants in, and shapers of, a larger human culture--a culture of which "American", like "Kenyan" or "Japanese", is but one part. (p. 2)

Many changes are taking place at all levels of the society, in all dimensions of human and social life, and in

every corner of this interdependent world. We need to develop the institutions that will make possible the management of interdependence within the context of this change. For, as we look to the next century, Soedjatmoko, 1984) says that, "it will be the capacity to learn--and in particular to learn from each other--which, more than any other single factor, will determine the viability, autonomy, and integrity of all societies" (p. 8).

#### Language barrier

Sabella, Kirby and Clary (1992) emphasized the ability to communicate in a language other than one's own as the most powerful tool an educator can possess. But Simon, in Lurie (1980) said that "the United States is the only country in the world where you can graduate from college without having had one year of a foreign language prior to and during the university years" (p. 413).

Hufstedler (1981, p. 46), agreed that schools in the United States may be the worst in the industrialized world at teaching foreign languages other than English.

According to Fulbright (1980), only 4 percent of high school graduates had spent over two years learning a foreign language. In 1977 only 9 percent of degree-credit college students were enrolled in foreign language courses.

Of the 11 million U.S. students seeking graduate and undergraduate degrees, fewer than 1% are studying the languages used by 3/4 of the world's population (Lurie, 1980).

In the Soviet Union there are almost 10 million students of English, but there are only 28,000 students of Russian in the United States (Hufstedler, 1981).

The Chronicle of Higher Education (1981) explains that only 7 percent of 3,000 American students surveyed thought they were sufficiently competent to understand a native speaker talking slowly and carefully.

Most area specialist officers in the Executive Branch, including the intelligence services, do not and usually cannot, read the materials of greatest concern to them in the original and cannot converse with their foreign counterparts beyond pleasantries in the other language (Lurie, 1982).

About 25 percent of Army and Navy jobs for which foreign language skills are deemed essential remain unfilled. About 20 percent of such positions in the Air Force and 35 Percent in the Marines remain unfilled (Hufstedler, 1981).

A CIA Survey of recruits hired between 1975 and 1978 showed that only 18 percent demonstrated minimum professional proficiency in a foreign language. Only one in five candidates accepted into the Foreign Service today meets States Department language competency standards (Thimmesch, 1981, p. 176).

According to the President's Commission on Foreign Languages and International Studies (1979, p.5), Americans' incompetence in foreign languages is nothing short of scandalous, and it is becoming worse. "America's scandalous incompetence in foreign languages explains our dangerously inadequate understanding of world affairs" (p. 7).

The Commission concluded:

American schools graduates--a large majority of students whose knowledge and vision stops at the American shoreline, whose approach to international affairs is provincial, and whose heads are filled with astonishing misinformation. (p. 7)

Frank A. Weil, former assistant secretary of commerce, trade and industry is quoted in Lurie (1982) as saying the following:

Our linguistic parochialism has had a negative effect on our trade balance. In fact, it is one of the most subtle non-tariff barriers to our export expansion... America does not export enough, 6-8 percent of our GNP as opposed to 15-25 percent of the GNP's of Germany and Japan...Part of the reason the Japanese and the Germans sell so effectively is that they have gone to the trouble of learning about us and adapting the products they export to our tastes and markets. An impressive number of their businessmen have learned our language, and foreign business students usually have international studies as part of the curriculum. (p. 413)

According to Simon (1990), the importance of foreign languages to American ability to compete in the global

marketplace is reflected in a simple rule of business: "If you want to buy, you can buy in any language; if you want to sell, you have to speak the language of the customer. If America is to be a viable competitor in the global marketplace, it must ensure that young graduates are able to communicate effectively with their potential trading partners from around the world" (p. 7).

In his article "Preparing University Faculty for International Assignments", Crawford (1987) identified four basic assumptions concerning agricultural education faculty that limit their involvement with international agricultural education. One of those assumptions was that a large number of agricultural education faculty do not possess competence in a foreign language. This assumption was consistent with a study by Sabella, Kirby and Clary (1992) which revealed that only .1% of the departments required faculty to improve their foreign language skills.

The authors drew the following conclusions:

Lack of language ability among agricultural education faculty implies several negative consequences. First, it greatly limits the departmental opportunities for participation with university international projects and limits the number of faculty who might otherwise travel abroad and gain international expertise. Second, faculty pursuing research are not able to read or are likely to misinterpret journal articles and studies written in languages other than English, and third, faculty without foreign language ability are less effective when recruiting,

advising and directing international student research. (p. 7)

Lack or insufficient budget

Budgetary limitations may result in inadequate pre-service and in-service training programs for teachers. This may also limit the availability of appropriate teaching resources and materials for international programs.

John Lenczowski, a lecturer on Soviet affairs at the University of Maryland is quoted in DeOnis (1980) as saying that Proctor and Gamble spends more money on its annual advertising for soap than is spent on the budget last year for the United States International Communication Agency.

Harari (1981), observed that funding efforts in the international program area are most likely to succeed when they are based on a soundly conceived, institutionally-diffused and appreciated mission. Institutions that have refined their missions and objectives in the international area and are doing in the curriculum what is needed to internationalize their campus find it considerably easier to raise additional funds, locally and nationally. Such an effort pays off in a variety of ways when supported by the institutional commitment and the faculty. This is probably the fundamental reason why some institutions are not doing much internationally and find it hard to raise funds, while



others of comparable budget and size develop strong services in the international area accompanied by a number of contracts and grants (p. 46-47).

#### Faculty training and development

The first priority for this generation is international understanding--to learn the hazards and hopes of this world we inhabit and to learn how to cope with its problems. Our first step must be to strengthen our institutions of learning. Lacking such strength, we can neither engage intelligently in assistance to others nor can we develop the wisdom and judgment essential in fulfilling the almost terrifying responsibilities which we as a nation have acquired. (Gardner, John W., Quoted in Sanders and Ward, 1970, p. XII)

The strength of an educational program depends on faculty vision, knowledge/skills, and leadership. Unfortunately as noted in Merryfield (1991), "despite activities at state and national levels, the movement to achieve global perspectives in education is hindered by teachers' lack of knowledge of the world" (p. 11).

The American Association of Colleges for Teacher Education (Council on Learning, 1981) estimated that only about 5% of the nation's elementary and secondary teachers have had any academic preparation in international topics or issues. The National Governors' Association (1989) singled out inadequate teacher preparation in global perspectives as a major obstacle to the ability of the United States to meet the

economic, political and social challenges of the 21st century. As discouraging as the situation is, Barrows, Clark, and Klein (1980) said the future is still bleak because college students preparing to be teachers are less well prepared in international content than all other college majors.

Schechter (1990) acknowledged that a competent, informed and internationally involved faculty is the university's key resource for achieving a true internationalization. But, maintaining such a faculty is impossible without a continuous flow of international activities including exchange scholars, sabbaticals taken abroad, international symposia attendance, short-term consulting activities and long-term foreign assignments.

Researchers who investigated the implementation of global curricula identified pre-service course work, in-service training and overseas experiences as major factors influencing teachers' ability and motivation to teach international content (Barnes and Curlette, 1985; Martin, 1988; Thorpe, 1988; Tucker, 1983; tye, 1980; and Wilson, 1982, 1983).

According to Eckert and Nobe (1983):

Periodic absences from campus are simply one of the costs of accepting a global responsibility. The experiential "laboratory" which supports an internationalized curriculum is the flow of world events. Participation abroad in the flow, in whatever capacity, is a necessary condition for effective teaching of the subject. In sum, faculty exposure to researchable problems and service opportunities in developing countries

will usually enhance departmental research and teaching programs rather than diminish them. One of the missing ingredients at present is recognizing these activities as legitimate and giving them full measure in evaluation and reward systems. (p. 37)

Unfortunately, as observed by Eckert and Nobe (1983), the reward system continues to discriminate against those faculty who engage themselves in international education and spend time overseas, unless they are among the minority able to bring in significant grants to their university for development projects.

The authors concluded that, in order to broaden faculty involvement, funding agencies and university administrations must recognize a need to move further toward diversity in on-campus programs, building on international programs, but counter-balancing them with a wider set of opportunities for professional development and involvement.

Acknowledging the need for faculty development, The President's Commission on Foreign Languages and International Studies (1979) stated:

If our schools are to teach more effectively about other countries and cultures, we must provide our teachers with the knowledge and tools this task requires. Moreover, if a sensitivity to other cultures and an awareness of world issues are to be major goals for our schools, they will not be reached solely through the teaching of subjects as social studies and foreign language, crucial as these are. International content should be part of the teaching of all subjects, and within the capabilities of all teachers.

This requires priority in both curriculum development and the professional development of teachers. (p. 49)

### Means of Adding International Perspectives to a University Curriculum

The literature has suggested a wide variety of means to achieving the goals of curriculum internationalization. The choice made by an institution or department will depend, in part, on the structure, mission, finances, past history, knowledge and experience of the faculty and politics of the institution or department in question.

Although there are numerous ways an institution may use to add international perspective to its curriculum, this study will discuss only a few. These include: infusion, international studies majors and minors, foreign language instruction, overseas studies, international internships and jobs.

#### Infusion

The concept of infusion involves introducing comparative, international dimensions into pre-existing courses throughout the curriculum. The goal is to get students to think comparatively in all of their intellectual inquiries.

According to Schechter (1990):

An infusion strategy offers an institution a number of additional advantages, most notably in terms of the number of students' lives which are influenced. Equally as importantly, however, such a strategy affects students across economic, racial, geographic, gender and skill categories. It is also relatively inexpensive because it does not require hiring large numbers of new faculty and supporting them with money for field research. (p. 15)

The author also explained that the infusion model has a number of disadvantages as an internationalization strategy, because it maximizes breadth at the expense of depth. Courses are taught by non-specialists, who can be expected to err at times and who may lack the passion and commitment of field-trained specialists. These non-specialists are likely to skip the international, comparative and cross-cultural materials, which they feel least comfortable teaching.

But despite the disadvantages of the infusion method, Harari (1981) emphasized that "faculty members should be encouraged to infuse their courses as much as possible, with non-Western materials, to engage in comparative approaches in their teaching and research, and to address topical world issues on as much of an interdisciplinary basis as possible, individually and with the assistance of colleagues" (p. 45).

### International studies majors and minors

According to Schechter (1990, p. 16), this strategy aims at bringing together a number of disciplinary disparate courses. Thus, it aims to bring undergraduates' academic programs more coherent than they otherwise might be. Such a strategy also offers students an exciting field to study, which, as a consequence, will get them to hone the skills which such courses require of them. At the same time, such programs allow faculty, who might not otherwise do so, to meet and work together in advising, teaching, monitoring and revising such programs. As a consequence of such interaction, they might also develop joint research and/or outreach activities.

### Foreign language instruction

Although the importance of foreign language instruction as a means to internationalize the curriculum cannot be overstressed, Schechter (1990) points out that:

For foreign language courses to serve as part of an effective internationalization strategy, they must teach more than simply grammar and literature. They also need to teach culture, geography, politics, history and economics; that is, substantive knowledge about the countries in which the languages being studied are spoken. (p. 17)

### Overseas studies

There may be no single set of experiences which is of greater long-term benefit to a student in terms of expanding his or her international and cross-cultural perspective than to participate in an overseas study program, especially one which is in a cultural setting significantly different from the one with which they are most familiar (Schechter, 1990).

Harari (1981) acknowledged that international exchanges of faculty and students can play a critical role in the internationalization of a university, but they should be considered as a means to an end rather than an end in themselves. "Sound international linkages must be promoted at the institutional level to reinforce the curricular concentrations of the institution and to discharge its international responsibility" (p. 46).

### International internships and jobs

International internships and jobs offer many of the advantages of overseas study programs, with the possibility of overcoming some of the financial obstacles that often accompany the more traditional overseas experiences.

According to Schechter (1990), each of the above strategies calls for faculty and staff effort beyond what have traditionally been expended. Accordingly, successful internationalization strategies may require a modification of

an institution's reward system to underscore the importance of participation in the institution's internationalization efforts. "Achievement of such a bold, yet almost cost-free step, requires that the institution insure that its major decision-makers have a commitment to internationalization efforts. Requiring such a commitment of key deans and other influential academic decision-makers can, over time, also be expected to increase the number of faculty hired with a similar commitment" (p. 18).

**Commitment Needed to Sustain Curriculum Internationalization**  
**Presidential commitment**

As colleges and universities internationalize, they struggle to find the most effective way to provide leadership and management for a complex, growing and ever-changing enterprise that cuts across disciplinary boundaries as easily as it cuts across national boundaries. According to Bowman (1990), "it is one that affects virtually every facet of the institution-research, curriculum, public programs, faculty development, enrollment management, and student affairs. To a large extent, decisions regarding a structure that will support internationalization reflect something about the institution's culture, history, resources, and aspirations (p. 9).



As stated by Harari (1981), the process of internationalizing the institution is critical, calls for planning and consensus-building, and involves the faculty on an institution-wide basis as well as the leadership. "The leadership of the institution must initiate and reinforce the vital process of study and consequent implementation of the international role of the institution. Through intangible and tangible encouragements, rewards, and incentives, the leadership of universities should indicate its recognition of faculty members, in performance in the international area" (p. 45).

Emphasizing the importance of committed and visible presidential leadership in strengthening a university's international dimension, Arum (1987) stated the following:

The president must lead the administration in displaying consistent commitment to international education in word, deed, and allocation of resources. The president must continuously stress to the university community and the public the importance of international education. He/she also would actively participate in national and international organizations that promote international programs. Resources would be allocated for developing and maintaining international programs. The president would visit foreign countries and their educational institutions to establish linkages whenever possible. International experience would be recognized as an appropriate criterion for appointing deans and university administrators. (p. 18-19)

An important side-effect of presidential leadership regarding international education is the atmosphere it can create on a campus. Offices that have never before collaborated on international education projects suddenly are more interested in doing so. Faculty who have been reluctant to participate in overseas activities or in international campus programs are now offering ideas and assistance (Arum, 1987, p. 21).

#### Faculty commitment

Incorporating a global perspective into the school curriculum is both practical and worthwhile. Meeting the challenges of such a goal is within reach, once teacher educators become committed to global education (Bruce, Podemski, and Anderson, 1991, p. 26).

Bobbitt and Meaders (1987, p. 13-14) commented that agricultural education professionals must make a commitment by providing a leadership role in bringing international concepts to the local community and school system. This leadership role should extend to assisting local communities to understand the impact that international decisions have on their future.

But the faculty must be encouraged or motivated, as the general university environment in which faculty live and work sets the tone and will play an important role in the

participation of individual faculty in international activities. "This means that if there is a general environment of interest and recognition of the role and importance of international dimensions within the context of the university's programs, such will reflect favorably on the potential participation by faculty" (p. 112).

In describing faculty commitment to international education, Arum (1984) stated the following:

The faculty will teach their subject from a comparative perspective, knowing when their ideas are relevant to only the U.S., and when their thoughts are approaching universality of relevance. They will understand the history and status of their field or profession as it is practiced or taught in the U.S. as well as in other countries of the world. The faculty will have lived and/or worked in other countries for significant periods of time and will have ongoing collaborative research projects with foreign colleagues. Some of their research and experience abroad will be done explicitly to benefit the development of Third World countries. This international experience will also enhance the faculty member's capabilities as advisers to foreign students on their campus as well as to U.S. students with international interests. In their teaching they will occasionally teach their courses in a foreign language and they will also utilize the experiences of foreign students and scholars as well as U.S. students with international experiences in order to provide comparative insights regarding the subject matter. Such faculty will desire to share their own international experience with their students by encouraging them to study and do research abroad, and they will occasionally lead such study abroad programs. (p. 15-16)

### Students commitment

A firm commitment toward international education cannot be undertaken by the president and faculty members alone. The students must begin to show their interest in this area.

Donald F. McHenry, former United States Ambassador to the United Nations made the following statement at a recent commencement address:

A recent study reveals that your knowledge is significantly short when it comes to the world in which you live. A part of the responsibility for this is the responsibility of our educational institutions. But the responsibility is also yours--yours for ignoring the inadequate diet of information served by the media, yours for pursuing narrow career goals and yours for your failure to see, or be interested in, how your career goals relate to the world around you. You live in a time when knowledge of world affairs is no longer simply nice to have or a luxury. It is essential to our well-being. Long-term strategy requires a political consensus. Without consensus we are vulnerable to uninformed simplistic appeals, heavy on jingoism and misguided patriotism. (McHenry, 1981, p. 55)

According to Magrath (1992), international education needs to be a commitment of the campus line officers, not just those men and women who have a special passion and commitment to international education. "It needs to be a commitment of the president, the academic vice president, and the deans--for leadership belongs with those in leadership positions--and leadership needs to mobilize those faculty who support and understand the importance of international education" (p. 4).

In conclusion, it is important to underscore the point that beyond commitment, international education can only succeed when faculty and administrators have a shared understanding of what is involved in developing a global perspective.

### Summary

The debate over the introduction of an international perspective into the curriculum in U.S. institutions of higher education has gone on for many decades. Technological, economic, social and political factors have combined to bring many scholars and authors to the conclusion that internationalization of the curriculum is an essential component of education.

According to Knowles and Sledge (1989), colleges and universities from one end of the United States to the other are grappling with the issue of how to internationalize their curricula and provide appropriate overseas experiences for their students. Colleges of agriculture and natural resources should be no exception to this trend, as the need to understand the global economy and the United States' place within it touches every farm family.

Martin and Keller (1989) acknowledged as follows:

The need for developing an awareness of the global nature of the agricultural industry has become one of the major issues of our

time. It has become increasingly apparent that if a person is to be considered educated in agriculture, he/she must be cognizant of the inter-relationships of various agricultural systems and the governments, cultures and societies in which they function. It is no longer sufficient to know how to produce food and fiber and conduct or manage the many tasks in today's agricultural industry. Development and enhancement of one nation's agricultural system is unavoidably inter-woven with those of other nations. If these developments and inter-relationships are to be successful, it is critical that students of agriculture learn as much as possible about systems of agriculture in cultures and societies around the world.  
(p. 15)

But despite much literature in support of Curriculum internationalization, Magrath (1992) said the challenge on behalf of international education remains as it has ever been, an exceedingly tough one. Goodwin and Nacht (1991) documented that the resistance on the part of many mainstream faculty to internationalizing the curriculum and to truly support international involvements as part of the educational teaching and research process constitutes a serious problem.

Magrath (1992) pointed out that:

For many faculty leaders, and sadly for too many senior administrators, international education is a "nice thing", something out there that is marginal, exotic, but hardly vital to the reputation and prestige of the college or university. It is difficult to bring about change, because most colleges and universities are simply not organized to give a high priority to international education. There are international education offices at most colleges and universities, but sadly they are often individuals who do not have line or budgetary authority; they have

the same kind of influence that too often has been attached to our Affirmative Action offices. (p. 4)

Bruce, Podemski and Anderson (1991) shared the same concern by recognizing the difficulty of developing a global perspective in teacher education. The authors explained that the most difficult problem to overcome in the process is the lack of awareness among education faculty that students need a global perspective and that a development of such a perspective in an educational program is feasible. Faculty whose preparation and experience may not have included a global perspective may question the need for such an emphasis in the curriculum and doubt the feasibility of incorporating yet another emphasis in an already crowded curriculum.

In Lamy's (1983) opinion:

Many teachers and administrators recognize that most international education programs introduce a new and challenging content to their classrooms and schools. However, these educators often do not feel competent to teach or administer programs in international issues, area studies, foreign languages and cross-cultural understanding. Finally, many educators are concerned that this emphasis on global or international programs is contradictory to the fundamental purpose of the school--to prepare young people for careers and for citizenship in the United States. (p. 5)

But with the rapid shrinking of our world and the dramatically increased interdependence between nations, American institutions cannot afford not to prepare her

citizens for participation in world affairs. What is needed is a broad public awareness of the problem and its numerous implications nationally and internationally. If the public can be educated about the alarming state of U.S. ignorance about the rest of the world and its implications to national security as is repeatedly indicated in the literature, it will make it easier to gain support for new proposals and efforts to internationalize the schools curricula. It is our responsibility as educators, journalists, government leaders and citizens to sound the alarm.

As we look to the 21st century, we should not forget the words of the former U.N. Secretary General Kurt Waldheim, in Lurie (1982), that: "many civilizations in history have collapsed at the very height of their achievement because they were unable to analyze their basic problems, to change directions and to adjust to new situations which faced them" (p. 419).

While there are substantial difficulties in providing a quality international dimension to agricultural education programs, Kellogg (1984) said: "we must offer the kind of educational experience for agricultural students for the 1990's and the 2000's. To neglect the international dimension in our universities' educational programs in agriculture would be a failure to responsibly fulfill our mandates as teachers of a new generation" (p. 18).



Leadership and commitment from the dean, department chairs, and faculty is urgently needed to set clear goals to incorporate international education into the curriculum in agricultural education. Education is a change process. As the most prominent facilitators in this process, educators must be touched by today's changing circumstances in the world arena. We must have the vision, skills and leadership in providing strong international perspectives into the agriculture education curriculum or risk our jobs and those of our students.

In conclusion, it is useful to underscore the point that as we approach the 21st century, no great university or college of agriculture will maintain a position of leadership if its interests and experiences are confined within the boundaries of a single state-or in today's world, a single nation. The degree to which an educational institutions will become involved in international or global programs will determine the degree to which they can provide leadership, growth and vitality to their own domestic programs.

### CHAPTER III. METHODOLOGY

The purpose of the study was to examine the perceptions held by agriculture education teachers in Departments of Agricultural Education in the United States' institutions of higher education regarding internationalization of the agricultural education curriculum. A secondary purpose was to identify the activities conducted by agriculture education teachers to add international perspectives to the agricultural education curriculum.

This chapter describes the methods and procedures used in carrying out this study. They are reported under the following sections: (1) research design, (2) description of the population for the study, (3) description of the sample for the study, (4) development of the data collection instrument, (5) validation of the instrument, (6) data collection method, (7) coding of the data, and (8) statistical analysis.

#### Research Design

This was principally an exploratory survey and descriptive research study, using a mailed-questionnaire approach, in which respondents' opinions were sought and collected on what they were assumed to be knowledgeable about.

### Population for the Study

The population for this study included all the agricultural education teachers in the United States institutions of higher education. A list of the professors were collected by using both the Directory of Agricultural Education Departments (1993-94) and the Agricultural Education Directory (1992). There were a total of 360 U.S. agricultural education teachers listed in both directories.

### Sample for the Study

Limited by resources, the researcher and his major professor decided a sample should be drawn from the population for the study. A sample of 260 agricultural education teachers were randomly selected from the population. This represented about 67% of the population. There was an over-sample drawn because of a concern about response rate.

Of the 260 questionnaires mailed, six were returned because the respondents were no longer agricultural education teachers. Thus, the actual sample for the study consisted of 254 agricultural education teachers. From the actual sample, 205 questionnaires were returned, yielding an 80.1% return.

Of the returned questionnaires, twelve were blank-- indicating respondents' unwillingness to participate in the study. Nine returned questionnaires were not properly completed and were not used in the study. Therefore, 184

respondents provided the useable data for this study.

The distribution of respondents in the 81 U.S. universities covered by this study and the questionnaire returns are shown in Table 1.

#### Development of Data Collection Instrument

The instrument used for data collection for this study was a questionnaire. Five main sources of information were used in developing the instrument. These sources were: (1) input from the review of the literature, (2) the instrument used by King (1991) on perceptions regarding the infusion of a global perspective into the curriculum as identified by the faculty of the College of Agriculture at Iowa State University, (3) the instrument used by Elbashir (1991) on The perceptions of Iowa Young Farmers regarding the role of international agriculture in agricultural education in Iowa, (4) the instrument used by Backman (1993) on internationalization of Home Economic's education: global education practices and perceptions of teacher educators, and (5) input from the researcher's major professor and committee members.

The questionnaire items were based on the objectives of the study. The specific objectives of the study were:

1. To examine the perceptions of U.S. agriculture education teachers regarding internationalization of the agriculture education curriculum.

Table 1. Distribution of respondents in universities and questionnaire returns

University	Question- naires sent	Number returned	Percent return
01. Auburn University, Alabama	3	2	66.7
02. Alabama A&M University	3	2	66.7
03. Tuskegee University, Alabama	1	1	100.0
04. University of Arizona, Tucson	7	5	71.4
05. Univ. of Arkansas, Fayetteville	4	2	50.0
06. Southern Arkansas Univ., Magolia	2	1	50.0
07. Univ. of California, Davis	4	3	75.0
08. California St. Polytec., Pomona	2	1	50.0
09. California St. Polytec., Obispo	4	2	50.0
10. Colorado St. Univ., Ft. Collins	1	1	100.0
11. Delaware State College, Dover	1	1	100.0
12. Univ. of Delaware, Newark	1	1	66.7
13. Univ. of Florida, Gainesville	3	2	100.0
14. Univ. of Connecticut, Storrs	1	1	100.0
15. Florida A&M Univ.. Tallahassee	1	1	100.0
16. Univ. of Georgia, Athens	4	4	100.0
17. Univ. of Hawaii, Manoa	1	1	100.0
18. Univ. of Idaho, Moscow	2	2	100.0
19. Fort Valley State College, GA	1	1	100.0
20. IU Boise Center, Idaho	2	2	100.0
21. Southern IL. Univ., Carbondale	4	3	75.0
22. Western IL. Univ., Macomb	1	1	100.0
23. Illinois State Univ., Normal	2	1	50.0
24. Univ. of Illinois, Urbana	8	5	62.5
25. Purdue University, Indiana	2	2	100.0
26. Iowa State University, Ames	9	9	100.0
27. Kansas State Univ., Manhattan	4	2	50.0
28. Univ. of Kentucky, Lexington	1	1	100.0
29. Murray State Univ., Kentucky	2	2	100.0
30. Louisiana St. Univ., Banton R.	5	3	60.0
31. Western KY Univ., Bowling Green	1	1	100.0
32. Univ. of MD East Shore P. Anne	3	1	33.3
33. Univ. of Massachusetts, Amherst	1	1	100.0
34. Michigan St. Univ., E. Lansing	6	4	66.7
35. Univ. of Minnesota, Crookston	1	1	100.0
36. Univ. of Minnesota, St. Paul	6	3	50.0
37. Alcorn State Univ., Lorman	2	1	50.0
38. Mississippi State Univ., MS	6	5	83.3
39. Univ. of Missouri, Columbia	4	3	75.0
40. N.W. Mo State Univ., Maryville	3	2	66.7
41. Montana State Univ., Bozeman	5	5	100.0

Table 1. Continued

University	Question- naires sent	Number returned	Percent return
42. Univ. of Nebraska, Lincoln	8	3	37.5
43. Univ. of New Hampshire, Durham	4	2	50.0
44. N. Mexico St. Univ., Las Cruces	4	2	50.0
45. Cornell Univ., Ithaca, NY	5	5	100.0
46. NC A&T St. Univ., Greensboro	3	1	33.3
47. State Univ. of NY, Oswego	1	1	100.0
48. NC State Univ., Raleigh	5	3	60.0
49. Ohio State Univ., Columbus	11	9	81.8
50. Panhandle State Univ., OK	1	1	100.0
51. Kent State Univ., Ohio	1	1	100.0
52. Cameron, Lawton, Ok	1	1	100.0
53. Oklahoma St. Univ., Stillwater	4	4	100.0
54. Oregon State Univ., Corvallis	2	2	100.0
55. Penn St. Univ., Univ. Park, PA	15	11	73.3
56. Univ. of Puerto Rico, Mayaguez	4	2	50.0
57. Clemson University, Clemson SC	7	5	71.4
58. S. Dakota St. Univ., Brookings	1	1	100.0
59. Univ. of Tennessee, Knoxville	3	3	100.0
60. Univ. of Tennessee, Jackson	1	1	100.0
61. Univ. of Tennessee, Martin	1	1	100.0
62. TN Tech. Univ., Cookeville	1	1	100.0
63. Tennessee St. Univ., Nashville	1	1	100.0
64. Texas A&M Univ., Coll. Station	6	6	100.0
65. East Texas St. Univ., Commerce	3	2	66.7
66. Sam Houston State Univ., TX	1	1	100.0
67. Texas A&M Univ., Kingsville	3	2	66.7
68. Texas Tech. Univ., Lubbock	4	4	100.0
69. Stephen F. Austin St. Univ. Tx	1	1	100.0
70. Praire View A&M, Tx	2	1	50.0
71. S.W. TX State Univ., San Marcos	1	1	100.0
72. Tarleton St. Univ., Stephenville	3	2	66.7
73. Utah State Univ., Logan	4	2	50.0
74. Univ. of Vermont, Burlington	3	3	100.0
75. Virginia PI & State, Blacksburg	4	4	100.0
76. Virginia St. Univ., Petersburg	2	1	50.0
77. Washington St. Univ., Pullman	1	1	100.0
78. West Virginia Univ., Morgantown	6	4	66.7
79. Univ. of Wisconsin, Madison	3	2	66.7
80. Univ. of Wisconsin, Platteville	2	2	100.0
81. Univ. of Wisconsin, River Falls	4	2	75.0

2. Identify activities conducted by agriculture education teachers to add international perspective to the agriculture education curriculum.
3. Identify the activities which agriculture education teachers feel are critical to adding international perspective to the agriculture education curriculum.
4. Identify demographic characteristics of agriculture education teachers.
5. Compare selected variables to the demographic characteristics of agriculture education teachers.

To study the perceptions of U.S. agriculture education teachers regarding internationalization of the agriculture education curriculum, a total of 21 items with a Likert-type response categories were constructed.

The respondents were asked to choose one of the five responses provided by circling the number attached to the choice. The responses and the numbers attached were:

- \* 1. Strongly disagree
- \* 2. Disagree
- \* 3. Neutral
- \* 4. Agree
- \* 5. Strongly agree

The purpose of part 2 was to identify the activities conducted by agriculture education teachers to add an international perspective to agriculture education curriculum.

A total of 24 items with Likert-type response categories were constructed. The respondents were asked to choose one of the five responses provided by circling the number attached to the choice. The responses and the numbers attached were:

- \* 1. Never
- \* 2. Rarely
- \* 3. Occasionally
- \* 4. Frequently
- \* 5. Often

The third objective was to identify the factors which agriculture education teachers feel are critical to adding international perspective to agriculture education curriculum. A total of 20 items with Likert-type response categories were constructed. The respondents were asked to choose one of the five responses provided by circling the number attached to the choice. The responses and the numbers attached were:

- \* 1. Not important
- \* 2. Of little importance
- \* 3. Somewhat important
- \* 4. Important
- \* 5. Very important

Three were two open-ended items at the end of part 2 and three open-ended items at the end of part three in which the respondents were asked to list, respectively: the activities conducted by agriculture education teachers to add an



international perspective to the agricultural education curriculum; and the concepts which agriculture education teachers feel are critical to adding an international perspective to the agricultural education curriculum that were not covered on the instrument. The questionnaire, therefore, consisted of 65 items. These 65 items were followed by items to collect demographic data. These items asked respondents to indicate their sex, age group, present rank, years taught in college or university, percentage of present time allocated for each responsibility performed, their ethnic group, their citizenship, countries they have visited other than U.S, length of visit, purpose of visit and number of languages they can speak other than English.

#### Validation of the Instrument

The initial draft of the questionnaire was given to the researcher's major professor for comment on content, readability, clarity, and the extent the items were measuring what they were designed to measure. A copy of the same questionnaire was given to each of the five committee members for their comments. A pre-testing of the questionnaire was conducted among selected agriculture education graduate students at Iowa State University, Ames. Revisions were made based on suggestions from these professionals and a final draft was produced.

Iowa State University requires that the proposal and instrument of a research study that involves human subjects be reviewed and approved by the University Committee on the Use of Human Subjects in Research. This procedure is to ensure that the proposal conforms to approved guidelines, and that the rights and welfare of the human subjects involved are adequately protected, that risks are outweighed by the potential benefits and the expected value of the knowledge sought, that confidentiality of data was assured and that informed consent was obtained by appropriate procedures when the study was eventually conducted. The proposal and the instrument for this study were approved by the committee (Appendix A-p. 171).

#### Data Collection Method

The questionnaires were sent to and collected from the respondents by mail. The front page of the questionnaire carried a letter explaining the purpose and importance of the study and assuring confidentiality of information provided.

A self-addressed stamped envelope was included for the return of the completed questionnaires. The respondents were asked to return the completed questionnaires within four weeks to the Department of Agricultural Education and Studies at Iowa State University in the self-addressed, stamped envelopes. The questionnaires were numerically coded to help

the researcher identify the respondents who had not returned their completed questionnaires, thus enabling a follow-up of non-respondents.

The follow-up letters were sent seven weeks after the first mailing encouraging respondents to return their completed or blank questionnaires as soon as possible. Three weeks after the first follow-up letter, a second follow-up letter was sent to the respondents who had not returned their questionnaires.

In this second and last follow-up attempt, a copy of the questionnaire and a self-addressed, stamped envelope were included in the mailing to non-respondents.

#### Coding of Data

Each questionnaire received by the researcher was carefully reviewed for missing or incorrect data. Missing or incorrect data responses were coded as such using the missing values program in SPSS (Norusis, 1983).

#### Statistical Analysis

The researcher utilized the Iowa State University computer facilities for statistical analysis of the data in this study. The data were analyzed using the computer program known as Statistical Package for Social Sciences (SPSS) (Norusis, 1983).

Data were analyzed and summarized using the following statistical procedures:

1. Frequencies to measure the percentage of respondents responding to each item.
2. Statistical analysis to calculate mean scores and standard deviations.
3. Statistical computations to test the hypotheses of the study and compare selected variables to the demographic characteristics of respondents. Specifically, a one-way analysis of variance, a t-test, Pearson Product-Moment Correlation Coefficient, and the stepwise regression were computed. The alpha level was established at the .05 level.

#### Assumptions of the Study

The study was designed and carried out based on the following assumptions:

1. Agriculture education teachers involved in the study were knowledgeable enough on those aspects of the international education addressed by the study to express an informed opinion.
2. The aspects of the international education identified and addressed in the questionnaire meant the same thing to all the respondents.

3. The respondents were objective in completing the questionnaire.
4. The sample used in the study was representative of agriculture education teachers in U.S. institutions of higher education.
5. The methods of data collection and analysis used in the study were appropriate for the study.
6. The findings of the study would be helpful to agriculture education teachers and others involved in policy-making, planning and implementation of agriculture education programs.

#### Limitations of the Study

The study may be influenced by the following limitations:

1. The questionnaire used in collecting data for the study represents a selected list of questions established by a panel of experts. Therefore, the questionnaire may not have represented all the possible opinions and activities conducted by agriculture education teachers in U.S. institutions of higher education regarding the infusion of international perspective into the agriculture education curriculum.
2. The study was limited to agriculture education teachers in U.S. institutions of higher education.

3. Since mailed questionnaires were used to obtain the responses, the research was subject to the weaknesses inherent in this type of data collection method.

#### Hypotheses of the Study

The following hypotheses were tested:

1. The perceptions of agriculture education teachers in U.S. institutions of higher education regarding internationalization of the agriculture education curriculum will not differ by age of respondents.
2. The perceptions of agriculture education teachers in U.S. institutions of higher education regarding internationalization of the agriculture education curriculum will not differ by respondents' professional rank.
3. There is no significant statistical difference between respondents' perceptions regarding internationalization of the agriculture education curriculum and international travel.
4. There is no significant statistical relationship between respondents' perceptions regarding internationalization of agriculture education curriculum and years of experience.
5. There is no significant statistical relationship between respondents' perceptions regarding internationalization of the agriculture education curriculum and length of visit to foreign countries.

6. There is no significant statistical relationship between respondents' perceptions regarding internationalization of the agricultural education curriculum and the activities conducted by respondents to add international perspectives to the agriculture education curriculum.
7. There is no significant statistical relationship between respondents' perceptions regarding internationalization of the agriculture education curriculum and the percentage of time allocated for teaching.
8. The age of respondents, years of experience, activities conducted to add international perspective to the agricultural education curriculum, factors which respondents feel are critical to adding international perspective to the agricultural education curriculum, and international travel would not significantly predict the perceptions of agricultural education teachers regarding internationalization of the agricultural education curriculum.

#### CHAPTER IV. FINDINGS OF THE STUDY

The main purpose of the study was to examine the perceptions held by agriculture education teachers in Departments of Agricultural Education in United States' institutions of higher education regarding internationalization of the agricultural education curriculum. A secondary purpose was to identify those activities which are being conducted to add international perspectives to the agricultural education curriculum.

The population for the study comprised all the agricultural education teachers in the U.S. institutions of higher education listed in the Directory of the Agricultural Education Departments (1993-94), and the Agricultural Educators Directory (1992). There were a total of 360 agriculture education teachers listed in both directories. A sample of 260 agriculture education teachers were randomly selected from the population for participation in this study.

An instrument with 65 items relating to international education was used to collect data for the study. The instrument was comprised of three sections: (1) perceptions of U.S. agriculture education teachers regarding internationalization of the agricultural education curriculum, (2) activities conducted by agriculture education teachers to add international perspectives to the agricultural education curriculum, and (3) the concepts which agriculture education



teachers feel are critical to adding international perspectives to the agricultural education curriculum.

This chapter presents the results and findings of the study. The findings reported in this chapter were based on data obtained from a mailed questionnaire of 184 agriculture education teachers. The number of respondents and the percentages reported in the tables may not always add up to 184 or 100 percent respectively, either because not all respondents answered all items or because in some cases, items had multiple responses. The data will be presented and discussed in four general areas based on the objectives of the study. These areas are: (1) analysis of demographic information, (2) perceptions of U.S. agriculture education teachers regarding internationalization of the agricultural education curriculum, (3) activities conducted by agriculture education teachers to add international perspectives to the agricultural education curriculum, and (4) the factors which agriculture education teachers feel are critical to adding international perspectives to the agricultural education curriculum.

To examine the level of internal consistency and stability of the grouped items in the instrument, Cronbach's alpha was used to analyze the reliability tests for the sixty-five items in the perceptions regarding internationalization of the curriculum, the activities conducted by

agriculture education teachers to add international perspectives to the agriculture education curriculum, and the factors which agriculture education teachers in U.S. institutions of higher education feel are critical in adding international perspectives to the agriculture education curriculum.

A Cronbach's alpha reliability test was also computed on each of these three sections. The alpha coefficient for items in the section titled "perceptions regarding internationalization of the agriculture education curriculum" was .94. The alpha coefficient for items in the sections entitled "activities conducted by agriculture education teachers to add international perspectives to the agriculture education curriculum" and the "factors which agriculture education teachers in U.S. institution of higher education feel are critical to adding international perspectives to the agriculture education curriculum" were .94 and .90, respectively.

Cronbach's alpha measures the consistency of items within the scale used in measuring a concept. Usually, reliability coefficients greater than .80 are regarded as high, especially for behavioral measures. Therefore, the reliability for the scales used in this study indicated a high consistency among items. This information is presented in Table 2.

**Table 2. Results of reliability tests for the instrument on perceptions regarding internationalization of the agricultural education curriculum in U.S. institutions of higher education**

<b>Instrument section</b>	<b># of items in section</b>	<b>Cronbach's alpha coefficient</b>
Perceptions of U.S. agriculture education teachers regarding internationalizing the agricultural education curriculum	21	.94
Activities conducted by agriculture education teachers to add international perspective to the agricultural education curriculum	24	.94
Factors that agricultural education teachers feel are critical in adding international perspective to the agricultural education curriculum	20	.90
<b>Total</b>	<b>65</b>	<b>.94</b>

#### **Analysis of Demographic Information**

As reported in chapter three, 184 respondents provided the usable data for this study. In this section, the description of these respondents in terms of their gender, age group, present rank, years taught in college or university, percentage of time allocated for each of the assigned responsibilities at the present position, race, travel to countries other than United States, and the number of languages spoken other than English is reported.

**Gender of respondents**

The descriptive information collected in the demographic section revealed that 168 respondents (91.3%) were male, and 16 respondents (8.7%) were female (Table 3).

**Table 3. Distribution of respondents by gender**

<b>Gender</b>	<b>Number</b>	<b>Percent</b>
<b>Male</b>	<b>168</b>	<b>91.3</b>
<b>Female</b>	<b>16</b>	<b>8.7</b>
<b>Total</b>	<b>184</b>	<b>100.0</b>

**Age of respondents**

The data in Table 4 presents the distribution of agriculture education teachers by age. Three respondents (1.6%) indicated an age between 20 and 29 years, 36 respondents (19.6%) indicated an age between 30 and 39 years, 70 respondents (38%) indicated an age between 40 and 49 years, 47 respondents (25.5%) indicated an age between 50 and 59 years, and 27 respondents (14.7%) indicated an age of 60 or over. One respondent (.5%) did not indicate his or her age group.

Table 4. Distribution of respondents by age group

Age group	Frequency	Percent
20 to 29	3	1.6
30 to 39	36	19.6
40 to 49	70	38.0
50 to 59	47	25.5
60 or over	27	14.7
No response	1	.5
Total	184	100.0

Respondents' ranks

Data in Table 5 show that 21.2% of respondents were assistant professors, 31% were associate professors, 37% were full professors, 4.9% were instructors, and 4.9% were "others", 2 respondents (1.1%) did not indicate their ranks.

Respondents' years of teaching

The data in Table 6, show the distribution of respondents' years taught in college or university.

Thirty-three respondents (17.9%) indicated teaching between less than 1 year and 5 years, 36 respondents (19.6%) indicated teaching between 6 and 10 years, 28 respondents (15.2%) indicated teaching between 11 and 15 years, 24 respondents (13%) indicated teaching between 16 and 20 years,

Table 5. Distribution of respondents by professional ranks

Professional ranking	Frequency	Percent
Assistant professor	39	21.2
Associate professor	57	31.0
Full professor	68	37.0
Instructor	9	4.9
Other	9	4.9
Unspecified	2	1.1
Total	184	100.0

26 respondents (14.1%) indicated teaching between 21 and 25 years, 16 respondents (8.7%) indicated teaching between 26 and 30 years, 8 respondents (4.35) indicated teaching between 31 and 35 years, and 2 respondents (1%) indicated teaching between 36 or above years. Eleven respondents (6%) did not indicate their years of teaching.

#### Respondents' time allocated for teaching

The data in Table 7 show the number and percentage of time allocated by respondents for teaching, research, administration, extension, and other duties at present position.

**Table 6. Distribution of respondents by years taught in college or university**

<b>Years taught</b>	<b>Frequency</b>	<b>Percent</b>
Less than 1 yr. to 5	33	17.9
06 to 10	36	19.6
11 to 15	28	15.2
16 to 20	24	13.0
21 to 25	26	14.1
26 to 30	16	8.7
31 to 25	8	4.3
36 or over	2	1.0
No response	11	6.0
<b>Total</b>	<b>184</b>	<b>100.0</b>

Data in Table 7 indicate that 23 respondents (13%) spent between 5 and 25% of their time teaching, 39 respondents (21.9%) indicated spending between 26 and 50% of their time teaching, 43 respondents (24.1%) spent between 51 and 75% of time teaching, and 53 respondents (29.8%) reported spending between 76 and 100% of their time teaching.

**Table 7. Number and percentage of time allocated by respondents for teaching, research, administration, extension, and other duties at present position**

<b>Time (%)</b>	<b>Teach</b>	<b>Res</b>	<b>Admin</b>	<b>Ext</b>	<b>Others</b>
	<b>No. (%)</b>	<b>no. (%)</b>	<b>no. (%)</b>	<b>no. (%)</b>	<b>no. (%)</b>
<b>05 to 25</b>	23 (13.0)	58 (32.6)	27 (15.2)	19 (10.7)	24 (13.5)
<b>26 to 50</b>	39 (21.9)	23 (12.9)	10 (5.6)	11 (6.7)	7 (3.9)
<b>51 to 75</b>	43 (24.1)	2 (1.1)	7 (4.0)	4 (1.7)	1 (0.6)
<b>76 to 100</b>	53 (29.8)	0 ----	12 (6.7)	8 (4.5)	5 (2.8)
<b>No response</b>	6 (3.3)	6 (3.3)	6 (3.3)	6 (3.3)	6 (3.3)
<b>Total</b>	158 (88.8)	83 (46.6)	56 (31.5)	42 (32.6)	37 (20.8)

**Respondents' time allocated for research**

Fifty-eight respondents (32.6%) spent between 5 and 25% of time on research, 23 respondents (12.9%) spent between 26 and 50% of time on research, 2 respondents (1.1%) reported spending between 51 and 75% of their time for research.

**Respondents' time allocated for administration**

Twenty-seven respondents (15.2%) allocated between 5 and 25% of their time for administration, 10 respondents (5.6%) allocated between 26 and 50% of time for administration, 7



respondents (4.0%) allocated between 51 and 75% of time for administration, and 12 respondents (6.7%) allocated between 76 and 100% of time for administration.

Respondents' time allocated for extension

Nineteen respondents (10.7%) allocated between 5 and 25% of time for extension, 11 respondents (6.7%) allocated between 26 and 50% of time for extension, 4 respondents (1.7%) allocated between 51 and 75% of time for extension, and 8 respondents (4.5%) allocated 76 to 100% of time for extension.

Respondents' time allocated for other duties

Twenty-four respondents (13.5%) reported allocating between 5 and 25% of time for other duties, 7 respondents (3.9%) allocated between 26 and 50% of time for other duties, 1 respondent (.6%) spent between 51 and 75% of time on other duties, and 5 respondents (2.8%) allocated between 76 and 100% of time for other duties.

In sum, 158 respondents (88.8%) allocated between 5 and 100% of time for teaching, 83 respondents (46.6%) allocated between 5 and 100% of time for research, 56 respondents (31.5%) allocated between 5 and 100% of time for administration, 42 respondents (32.6%) allocated between 5 and 100% of time for extension, and 37 respondents (20.8%) allocated between 5 and 100% of time for other duties. Six

respondents (3.3%) did not indicate the percentage of time allocated for teaching, research, administration, extension or other responsibilities.

#### Respondents' race

The data in Table 8 show the distribution of respondents by race. Ten respondents (5.4%) were Native Americans, 14 respondents (7.6%) were African Americans, 1 respondent (.5%) was Asian American, 150 respondents (81.5%) were White Americans, 5 respondents (2.7%) were Hispanic Americans, 3 respondents (1.6%) were "Others" unspecified, and 1 respondent (.5%) did not indicate his or her racial identity.

Table 8. Distribution of respondents by race

Race	Number	Percent
Native American	10	5.4
African American	14	7.6
Asian American	1	.5
White American	150	81.5
Hispanic American	5	2.7
Others	2	1.6
Unspecified	1	.5
Total	184	100.0

Table 9 shows the distribution of respondents by country of citizenship. The data in Table 8 show that 179 respondents (97.3%) were United States citizens, and 3 respondents (1.6%) were U.S. permanent residents. The permanent residents did not specify their country of citizenship. Two respondents (1.1%) omitted their countries of citizenship.

Table 9. Distribution of respondents by country of citizenship

Country	Number	Percent
U.S. citizen	179	97.3
U.S. permanent Resident	3	1.6
Unspecified	2	1.1
Total	184	100.0

#### Respondents' travel to other countries

Data in Table 10 show the distribution of respondents by travel to other countries. One hundred and twenty-eight respondents (69.6%) indicated visiting at least one foreign country, and 50 respondents (27.2%) had never visited a foreign country. Six respondents did not answer this question.

**Table 10. Distribution of respondents by travel to other countries**

<b>Travel</b>	<b>Number</b>	<b>Percent</b>
<b>Yes</b>	<b>128</b>	<b>69.6</b>
<b>No</b>	<b>50</b>	<b>27.2</b>
<b>No response</b>	<b>6</b>	<b>3.2</b>
<b>Total</b>	<b>184</b>	<b>100.0</b>

**Continents visited by respondents**

Data in Table 11 show the number and percentage of respondents who indicated visiting at least one foreign country, the median length of stay, and the reasons for their visits. The countries listed by respondents were grouped into continents, length of stay was recorded in days, and the reasons for visiting were grouped into professional or vacation. The number of days was calculated in median to avoid skewed data as respondents' length of stay ranged from 1 day to above 5 years.

As shown in Table 11, 32 respondents (17.4%) visited Africa, their median length of stay was 62.5; 97% of their trips were professionally related, while 3% were vacation related. Forty-seven respondents (25.5%) visited Asia, their median length of stay was 63.0; 96% of their trips were professionally related, while 4% were vacation related.

**Table 11. Distribution of respondents by continent visited, length of stay, and reasons for visit**

Continent visited	Number and %	Median Length of stay (days)	Reason for visit & %	
			Prof (%)	Vac (%)
Africa	32 (17.4)	62.5	97	3
Asia	47 (25.5)	63.0	96	4
Europe	65 (35.3)	29.0	77	23
Canada	26 (14.1)	14.0	44	56
Australia	10 (5.4)	17.5	70	30
Latin America	76 (41.8)	17.0	68	32

Sixty-five respondents (35.3%) visited Europe, their median length of stay was 29.0; 77% of their trips were professionally related, while 23% were vacation related. Twenty-six respondents (14.1%) visited Canada, their median length of stay was 14.0; 44% of their trips were professionally related, while 56% were vacation related. Ten respondents (5.4%) visited Australia, their median length of stay was 17.5; 70% of their trips were professionally related, while 30% were vacation related. Seventy-six respondents (41.8%) visited Latin America, their median length of stay was 17; 68% of their trips were professionally, while 32% were vacation related.

Respondents' languages other than English

The data in Table 12 show the distribution of respondents by the number of language(s) other than English spoken. One hundred and thirty-four respondents (72.8%) indicated speaking no language other than English, 41 respondents (22.3%) indicated speaking 1 foreign language, 6 respondents (3.3%) indicated speaking 2 foreign languages, 1 respondent (.5%) indicated speaking 3 foreign languages, 1 respondent (.5%) indicated speaking 4 foreign languages, and 1 respondent (.5%) indicated speaking 7 foreign languages.

Table 12. Distribution of respondents by number of languages spoken other than English

No. of languages	No. of respondents	Percent
0	134	72.8
1	41	22.3
2	6	3.3
3	1	.5
4	1	.5
7	1	.5
Total	184	100.0

Objective 1. Examine the perceptions of U.S. agriculture education teachers regarding internationalization of the agricultural education curriculum

The analysis of respondents' perceptions regarding internationalization of agricultural education in U.S. institutions of higher education is presented in Table 13. There were 21 statements in this section. Respondents were asked to respond by using a scale of 1 to 5 to express their level of agreement or disagreement with each of the perception statements regarding internationalization of the agricultural education curriculum. The scales were: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

It was established a priori that those perception concepts with means 4.0 or above indicated a tendency toward fairly high agreement. It was also established a priori that each perception statement mean 3.5 and less than 4.0 indicated a tendency toward an agreement, the statement means 3.0 to 3.4 indicated neutral response, and a statement mean below 3.0 indicated a disagreement.

As indicated in Table 13, the respondents rated the statement "the total college curriculum should reflect a respect for and a knowledge of the global community" (item 3) the highest with a mean score of 4.33 (SD=.72). Other perception statements with means above 4.0 were: "the attitudes, values and commitment of the college faculty are

**Table 13. Means and standard deviations of agriculture education teachers' perceptions regarding internationalization of the agricultural education curriculum<sup>a</sup>**

Perceptions	X	SD
01. The total college curriculum should reflect a respect for and a knowledge of the global community.	4.33	0.72
02. The attitudes, values and commitment of the college faculty are important factors in trying to integrate global perspectives into the agricultural education curriculum.	4.29	0.67
03. The general university environment in which an individual faculty member works plays an important role in his/her participation in international activities.	4.28	0.73
04. International education is good for the U.S. agriculture economy.	4.23	0.72
05. Faculty should encourage their students to develop an attitude of appreciation and understanding of their role as citizens of the world.	4.20	0.72
06. United States citizens should increase their knowledge of other countries' agricultural systems.	4.19	0.81
07. International issues will become more important to U.S. citizens in the next ten to twenty years.	4.11	0.72
08. Opportunities to develop a knowledge base about the dynamics and inter-dependencies of nations throughout the world should be provided to students not only by the college of agriculture but throughout a university-wide program.	4.07	0.73

<sup>a</sup>

Scale: 1 = strongly disagree, 5 = strongly agree.



Table 13. continued

Perceptions	X	SD
09. Internationalization of the curriculum will help U. S. citizens to gain a greater understanding of the interdependence among nations.	4.05	0.85
10. Department heads and faculty in U.S. colleges of agriculture should be genuinely committed to promoting international education.	4.05	0.78
11. Agricultural educators have an important responsibility to enhance students' understanding of international issues that affect their lives and bind them to other people.	4.04	0.78
12. There are strong reasons for a university to encourage, establish, maintain or develop a commitment to internationalization of its programs, course offerings and activities.	4.00	0.81
13. International education should be actively promoted by students, faculty and administrators.	3.96	0.81
14. International agricultural education programs should be offered to help U.S. students understand current international market trends.	3.95	0.80
15. Agricultural educators should try to give examples from other countries' agricultural production systems along with the U.S. system.	3.92	0.85
16. Internationalization of the general curriculum should be a priority function of all U.S. institutions of higher education.	3.66	1.06

Table 13. continued

Perceptions	X	SD
17. Agricultural education faculty need a background of international knowledge in order to help students develop attitudes and practices that will be more compatible on a global scale.	3.63	0.92
18. In the context of United States' participation in the world community, it is imperative to employ agricultural education faculty with an international perspective.	3.42	0.98
19. The current emphasis on Western civilization and culture in the curriculum at U.S. universities should not be diluted by adding international perspectives.	2.69	1.18
20. U.S. institutions of higher education are placing too much emphasis on international education at the expense of local and national research priorities.	2.24	1.00
21. There is no need for continued effort in helping students develop a global perspective in agricultural education because they will get this elsewhere in the university.	1.92	0.93

important factors in trying to integrate global perspectives into the agricultural education curriculum" (mean=4.29), "the general university environment in which an individual faculty member works plays an important role in his/her participation in international activities" (mean=4.28), "international education is good for the U.S. agriculture economy"

(mean=4.23), "faculty should encourage their students to develop an attitude of appreciation and understanding of their role as citizens of the world" (mean=4.20), "United States citizens should increase their knowledge of other countries' agricultural systems" (4.19), "international issues will become more important to U.S. citizens in the next ten to twenty years" (4.11), "opportunities to develop a knowledge base about the dynamics and interdependencies of nations throughout the world should be provided to students not only by the college of agriculture but throughout a university-wide program" (mean=4.07), "internationalization of the curriculum will help U. S. citizens to gain a greater understanding of the interdependence among nations" (mean=4.05), "department heads and faculty in U.S. colleges of agriculture should be genuinely committed to promoting international education" (mean=4.05), "agricultural educators have an important responsibility to enhance students' understanding of international issues that affect their lives and bind them to other people" (mean=4.04), and "there are strong reasons for a university to encourage, establish, maintain or develop a commitment to internationalization of its programs, course offerings and activities" (mean=4.00).

There were five perception statements with means between 3.5 but less than 4.0 which indicated respondents' tendencies toward agreement. These statements were: "international

education should be actively promoted by students, faculty and administrators" (mean=3.96), "international agricultural education programs should be offered to help U.S. students understand current international market trends" (mean=3.95), "agricultural educators should try to give examples from other countries' agricultural production systems along with the U.S. system" (mean=3.92), "internationalization of the general curriculum should be a priority function of all U.S. institutions of higher education" (mean=3.66), and "agricultural education faculty need a background of international knowledge in order to help students develop attitudes and practices that will be more compatible on a global scale" (mean=3.63).

Respondents were neutral on the following perception statement: "in the context of United States' participation in the world community, it is imperative to employ agricultural education faculty with an international perspective" (mean=3.42).

Three perception statements were rated low, indicating respondents' disagreement. These items were: "the current emphasis on Western civilization and culture in the curriculum at U.S. universities should not be diluted by adding international perspectives" (mean=2.69), "U.S. institutions of higher education are placing too much emphasis on international education at the expense of local and national

research priorities" (mean=2.24), and "there is no need for continued effort in helping students develop a global perspective in agricultural education because they will get this elsewhere in the university" (mean=1.92).

Objective 2. Identify the activities conducted by agriculture education teachers in U.S. institutions of higher education to add international perspectives to the agricultural education curriculum

The analysis of the activities conducted by agriculture education teachers to add international perspectives to the agriculture education curriculum is presented in Table 14.

There were 24 items in this section. Respondents were asked to respond by using a scale of 1 to 5 to express their level of agreement or disagreement with each of the activity items used to internationalize the agriculture education curriculum. The scales were: 1=Never, 2=Rarely, 3=Occasionally, 4=Frequently, 5=Often.

It was established a priori that those activities statements with means 4.0 or above indicated a tendency toward often used, those activities statements with mean 3.5 and less than 4.0 indicated a tendency toward frequently used, the statement means 3.0 to 3.4 indicated occasionally used, and a statement mean below 3.0 indicated rarely or never used.

**Table 14. Means and standard deviations regarding activities conducted by agricultural education teachers to add international perspectives to the agricultural education curriculum<sup>a</sup>**

Activities	X	SD
01. Encouraging class discussions about other peoples' points of view.	3.84	0.91
02. Providing examples from diverse cultures.	3.53	0.94
03. Incorporating international students' perspectives into class activities.	3.47	1.05
04. Using educational materials that reflect an international perspective.	3.25	0.94
05. Incorporating courses that build awareness of trends affecting the future of agriculture worldwide.	3.23	1.03
06. Inviting guest speakers to share perspectives on global issues.	3.20	1.07
07. Participating in international development projects and activities.	3.19	1.16
08. Including international issues and material in agriculture education curriculum.	3.16	1.03
09. Attending seminars, colloquia, meetings, etc.	3.08	1.08
10. Keeping in contact with former students who have returned to their countries.	3.01	1.13
11. Establishing cooperative relationships with institutions in other countries.	3.00	1.21
12. Providing faculty international development opportunities.	3.00	1.20

<sup>a</sup>

Scale: 1 = never, 5 = often.

Table 14. continued

Activities	X	SD
13. Encouraging research on international topics.	2.98	1.04
14. Incorporating suggestions from former international students into the agricultural education curriculum.	2.78	1.03
15. Requiring all agricultural students to take at least one general education course that heightens awareness of issues related to international agriculture.	2.73	1.39
16. Supporting faculty exchanges abroad.	2.71	1.26
17. Offering study or internships abroad opportunities for U.S. students.	2.68	1.28
18. Providing exchange programs for U.S. agriculture education students in foreign countries.	2.61	1.31
19. Providing funds for international programs.	2.53	1.13
20. Hiring international educators as faculty and administrators in the college of agriculture.	2.49	1.09
21. Bringing distinguished educators from other countries to campus to serve as visiting scholars.	2.45	1.14
22. Providing special services to agricultural education students through workshops.	2.41	1.13
23. Awarding financial aid to support the recruitment of international students into agricultural education programs.	2.19	1.05
24. Establishing a foreign language requirement.	1.98	1.26

As indicated in Table 14, the respondents rated the statement "Encouraging class discussions about other peoples' points of view" the highest with means score of 3.84. "Providing examples from diverse cultures" was the second high rated item with a mean score of 3.53. These 2 statements indicated that respondents were leaning toward an agreement.

Respondents were neutral on 10 activity statements. These statements were: "incorporating international students' perspectives into class activities" (mean=3.47), "using educational materials that reflect an international perspective" (mean= 3.25), "incorporating courses that build awareness of trends affecting the future of agriculture worldwide" (mean=3.23), "inviting guest speakers to share perspectives on global issues" (mean=3.20), "participating in international development projects and activities" (mean=3.19), "including international issues and material in the agriculture education curriculum" (mean=3.16), "attending seminars, colloquia, meetings, etc." (mean=3.08), "keeping in contact with former students who have returned to their countries" (mean=3.01), "establishing cooperative relationships with institutions in other countries" (mean=3.00), and "providing faculty international development opportunities" (mean=3.00).

Twelve activity statements were rated low, indicating respondents' disagreement. These items were: "encouraging



research on international topics" (mean=2.98), "incorporating suggestions from former international students into the agricultural education curriculum" (mean=2.78), "requiring all agricultural students to take at least one general education course that heightens awareness of issues related to international agriculture" (mean=2.73), "supporting faculty exchanges abroad" (mean=2.71), "offering study or internships abroad opportunities for U.S. students" (mean=2.68), "providing exchange programs for U.S. agriculture education students in foreign countries" (mean=2.61), "providing funds for international programs" (mean=2.53), "hiring international educators as faculty and administrators in the college of agriculture" (mean=2.49), "bringing distinguished educators from other countries to campus to serve as visiting scholars" (mean=2.45), "providing special services to agricultural education students through workshops" (mean=2.41), "awarding financial aid to support the recruitment of international students into agricultural education programs" (mean=2.19), and "establishing a foreign language requirement" (mean=1.98).

Objective 3. Identify those factors which agriculture education teachers feel are critical to adding international perspectives to the agricultural education curriculum

The analysis of the factors which agricultural educators feel are critical to adding international perspectives to the agricultural education curriculum is presented in Table 14.

There were 20 items in this section. Respondents were asked to respond by using a scale of 1 to 5 to express their level of agreement or disagreement with each of the critical factors influencing the infusion of international education into agricultural education curriculum. The scales used were: 1=Not Important, 2=Of Little Importance, 3=Somewhat Important, 4=Important, 5=Very Important.

As indicated in Table 15, the highest rated item was "a genuine commitment to internationalization by the Dean of the College of Agriculture" (mean=4.22). Five other statements rated high were: "available funding for internationalization" (mean=4.18), "faculty willingness to change" (mean=4.12), "a genuine commitment to internationalization by the Head/Chairperson of the Department of Agricultural Education" (mean=4.09), "a genuine commitment to internationalization by the Faculty of the Department of Agricultural Education" (mean=4.08), and "linkages with international agencies and institutions" (mean=4.04).

**Table 15. Means and standard deviations regarding factors which agriculture education teachers feel are critical to adding an international perspective to the agricultural education curriculum<sup>a</sup>**

<b>Factors</b>	<b>X</b>	<b>S</b>
01. A genuine commitment to internationalization by the Dean of the College of Agriculture.	4.22	0.97
02. Available funding for internationalization.	4.18	0.97
03. Faculty willingness to change.	4.12	0.85
04. A genuine commitment to internationalization by the Head/Chairperson of the Department of Agricultural Education.	4.09	0.97
05. A genuine commitment to internationalization by the Faculty of the Department of Agricultural Education.	4.08	1.00
06. Linkages with international agencies and institutions.	4.04	0.89
07. Faculty incentives and rewards based on international experience/activities.	3.88	1.01
08. Faculty vision which includes an emphasis on international agriculture.	3.82	0.86
09. Study/work internships abroad.	3.78	0.98
10. Encouraging research in international agricultural issues.	3.72	0.90
11. Participation in technical assistance projects/contracts.	3.66	0.91
12. International awareness workshops for students and faculty.	3.57	0.98

<sup>a</sup>

Scale: 1 = not important, 5 = very important.

Table 15. continued

Factors	X	S
13. Private sector support.	3.54	1.07
14. Contact with former students from foreign countries.	3.50	0.95
15. Legislative support.	3.45	1.16
16. Previous international experience.	3.40	1.06
17. Providing financial aid to foreign students/scholars.	3.37	1.16
18. Ability to speak a foreign language.	3.07	1.15
29. Membership in international organizations.	2.96	1.08
20. Foreign language requirement.	2.71	1.19

There were 8 factor statements with means between 3.5 but less than 4.0 which indicated respondents' tendencies toward agreement. These statements were: "faculty incentives and rewards based on international experience/activities" (mean=3.88), "faculty vision which includes an emphasis on international agriculture" (mean=3.82), "study/work internships abroad" (mean=3.78), "encouraging research in international agricultural issues" (mean=3.72), "participation in technical assistance projects/contracts" (mean=3.66), "international awareness workshops for students and faculty" (mean=3.57), "private sector support" (mean=3.54), and

"contact with former students from foreign countries" (mean=3.50).

Respondents rated six factor statements low, indicating varying degrees of disagreement. These items were: "legislative support" (mean=3.45), "previous international experience" (mean=3.40), "providing financial aid to foreign students/scholars" (mean=3.37), "ability to speak a foreign language" (mean=3.07), "membership in international organizations" (mean=2.96), and "foreign language requirement" (mean=2.71).

### Hypotheses Testing

In the following section, the hypotheses of the study will be tested.

Hypothesis 1 The perceptions of agriculture education teachers in U.S. institutions of higher education regarding internationalization of the agriculture education curriculum do not differ by age of respondents.

A one-way analysis of variance was computed to test this hypothesis. As shown in Table 16, the computed F-Statistic was 1.06 with 3 and 179 degrees of freedom. The probability level was 0.3675. This result indicated that the perceptions of agriculture education teachers did not differ by age of

respondents. This means that both the older and younger agriculture education teachers had similar perceptions regarding internationalizing the agriculture education curriculum. The null hypothesis was therefore not rejected at the .05 level.

Table 16. Anova results for perceptions by age of respondents

Group	Number	Mean	Std. Dev.	F-value	Prob.
Under 39 years	39	3.88	.58	1.06	.3675
40 to 49	70	4.06	.52		
50 to 59	47	3.93	.56		
60 or over	27	3.95	.62		

Hypothesis 2 The perceptions of agriculture education teachers in U.S. institutions of higher education regarding internationalization of the agriculture education curriculum do not differ by professional rank of respondents.

A one-way analysis of variance was computed to test this hypothesis. As shown in Table 17, the computed F-Statistic was 1.54 with 3 and 178 degrees of freedom. The probability level was 0.2064. This result indicated that the perceptions of agriculture education teachers did not differ by professional rank of respondents. This means that all

agriculture education teachers had similar perceptions regarding internationalizing the agriculture education curriculum. The null hypothesis was therefore not rejected at the .05 level.

Table 17. Anova results for perceptions by rank of respondents

Group	Number	Mean	Std. Dev.	F-value	Prob.
Under 39 years	39	3.83	.56	1.54	.2064
40 to 49	57	3.97	.49		
50 to 59	68	4.02	.60		
60 or over	18	4.12	.53		

Hypothesis 3 The perceptions of agriculture education teachers in U.S. institutions of higher education regarding internationalization of agriculture education curriculum will not differ with an international travel.

To test this hypothesis, a t-test statistic was computed. The results in Table 18 indicated a significant difference in perceptions regarding internationalization of the agricultural education curriculum between respondents who had traveled to a foreign country and those who had not traveled ( $P=.009$ ).

This result means that respondents who had visited a foreign country perceived internationalization of the curriculum more positively than those who had not visited a foreign country. The null hypothesis was therefore rejected at the .05 alpha level.

Table 18. T-test results for respondents' perceptions by travel to a foreign country

Group	Number	Mean	SD	t	df	P
Visit	128	4.04	.58	2.4	176	.009
No visit	50	3.82	.47			

Hypothesis 4 There is no relationship between respondent's perceptions regarding internationalization of the agriculture education curriculum and years of experience.

This hypothesis was tested by computing the Pearson Product-Moment Correlation Coefficient to determine if a significant relationship existed between respondents who had few years of teaching experience and those who had many years of teaching experience. As shown in Table 19, the results showed no significant correlation ( $r = -.0163$ ). The null hypothesis was therefore not rejected at the .05 alpha level.



**Hypothesis 5** There is no relationship between respondents' perceptions regarding internationalization of the agriculture education curriculum and length of visitation to of a foreign country.

This hypothesis was tested by computing the Pearson Product-Moment Correlation Coefficient to determine if a significant relationship existed between perceptions of respondents and the length of their visit to a foreign country. As shown in Table 19, the results indicated a weak but significant correlation existed ( $r = .1776$ ,  $p < .05$ ). This means that respondents who stayed for a longer time in a foreign country tend to have more positive perceptions regarding internationalization of the curriculum than those who stayed for a shorter time period. The null hypothesis was therefore rejected at the .05 alpha level.

**Table 19.** Correlation for perception of respondents by years of experience, length of stay in a foreign country, activities to add international perspective to the agricultural education curriculum and teaching

	Perceptions by experience	Perceptions by length of visit	Perceptions by activities	Perceptions by. teaching
Corr.	-.0163	.1776*	.2413**	-.0504

\*Significant at .05.

\*\*Significant at .01.

Hypothesis 6 There is no relationship between respondents' perceptions regarding internationalization of the agriculture education curriculum and the activities used to add international perspectives to the agriculture education curriculum.

To determine if a significant relationship existed between perceptions of respondents and the activities they used to add international perspectives to the agricultural education curriculum, the Pearson Product-Moment Correlation Coefficient was computed. As shown in Table 19, the results indicate that a significant correlation existed ( $r = .2413$ ). This means that the null hypothesis was rejected at the .05 alpha level.

Hypothesis 7 There is no relationship between respondents' perceptions regarding internationalization of agriculture education curriculum and the percentage of time allocated for teaching.

This hypothesis was tested by computing the Pearson Product-Moment Correlation coefficient. The results in Table 19 showed no significant relationship between the perceptions of respondents regarding internationalization of the agriculture education curriculum and actual teaching of the subject ( $-.0504$ ). The null hypothesis was therefore not rejected at the .05 alpha level.

Hypothesis 8. The age of respondents, years of experience, activities conducted to add international perspective to the agricultural education curriculum, factors which respondents feel are critical to adding international perspective to the agricultural education curriculum, and international travel would not significantly predict the perceptions of agricultural education teachers regarding internationalization of the agricultural education curriculum.

This hypothesis was tested using the stepwise regression procedure. The results in Table 20 indicate that activities conducted by respondents to add international perspectives to the agricultural education curriculum, factors which respondents feel are critical to adding international perspective to the agricultural education curriculum, and respondents' travel to a foreign country significantly predicted respondents' perceptions regarding internationalization of the agricultural education curriculum.

Respondents' age and years of experience were not significant predictors of perceptions regarding internationalization of the agricultural education curriculum. The amount of variability in perceptions explained by the significant predictors was 21.3 percent.

Table 20. Stepwise regression results when respondents' perceptions regarding internationalization of the agricultural education curriculum is the dependent variable

Independent variable	R <sup>2</sup>	Beta	T	Sig. T
Activities	.019	.14	1.99	.0281*
Factors	.170	.37	5.14	.0000**
Travel	.024	.14	2.07	.0397*
Total	.213	F=14.69		P=.0000**

\*Significant at .05

\*\*Significant at .01

As shown in Table 20, the strongest predictor of agricultural education teachers' perceptions regarding internationalization of the agricultural education curriculum was the "factors" category (Beta=.37). It accounted for about 17 percent of the variation in perceptions. Examples of these factors are: commitment of the dean and faculty of the Department of agricultural education, funding, faculty willingness to change, institutional linkages, incentives and rewards system, faculty vision, internships abroad, previous international experience, language skills and membership in international organizations (See Table 15, p. 104).

## CHAPTER V. DISCUSSION

The main purpose of the study was to examine the perceptions held by agriculture education teachers in Departments of Agricultural Education in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum. A secondary purpose was to identify the activities conducted by agriculture education teachers to add international perspectives to the agricultural education curriculum.

The specific objectives of the study were: (1) to identify the demographic characteristics of agriculture education teachers, (2) examine the perceptions of U.S. agriculture education teachers regarding internationalization of the agriculture education curriculum, (3) identify activities conducted by agriculture education teachers to add an international perspective to the agricultural education curriculum, (4) identify the factors which agriculture education teachers feel are critical to adding international perspectives to the agricultural education curriculum, and (5) compare selected variables to the demographic characteristics of agriculture education teachers.

The population for the study comprised all the agricultural education teachers in the U.S. institutions of higher education listed in the Directory of Agricultural Education Departments (1993-94), and the Agricultural

Educators Directory (1992). There were a total of 360 agricultural education teachers listed in both directories. A sample of 260 agricultural education teachers were randomly selected from the population for participation in this study.

In this chapter, the discussion of the findings of the study are presented. The discussion is presented in five general areas based on the objectives of the study. These areas are: (1) demographic information, (2) perceptions, (3) activities, (4) factors, and (5) hypotheses.

#### Demographic Information

As reported in Chapter Three, 184 respondents from 81 U.S. institutions of higher education provided the usable data for this study. As was expected, the analysis of the demographic information revealed that 91.3% of the respondents were male, 63.5% of the respondents were between 40 and 59 years old, 82% of the respondents were "White Americans", and 98.4% of the respondents were United States citizens.

The above information supported Banks (1989) who observed that although there are many different racial, ethnic, religious, and cultural groups in the United States' institutions, the school curricula, textbooks and other teaching materials have rarely given attention to these differences. According to Banks, most teachers in U.S. schools are white and middle-class, and were educated in white

middle-class institutions, and have historically taught white and middle-class students.

The demographic information also revealed that 68% of the respondents were associate or full professors, 78.6% of the respondents had taught between 1 and 25 years in colleges or universities, 88.8% of the respondents allocated between 5 and 100% of their time for teaching. About 70% of the respondents had traveled to a foreign country either on professional or vacation related reasons. Only 27% of the respondents indicated speaking at least one foreign language.

#### Perceptions

The analysis of the agricultural education teachers' perceptions regarding internationalization of the agricultural education curriculum in U.S. institutions of higher education indicated that respondents rated the statement "the total college curriculum should reflect a respect for and a knowledge of the global community" (item 3) the highest item with a mean score of 4.33.

The fact that respondents rated this statement the highest, and the fact that they rated the following three statement the lowest "the current emphasis on Western civilization and culture in the curriculum at U.S. universities should not be diluted by adding international perspectives" (mean=2.69), "U.S. institutions of higher

education are placing too much emphasis on international education at the expense of local and national research priorities" (mean=2.24), and "there is no need for continued effort in helping students develop a global perspective in agricultural education because they will get this elsewhere in the university" (mean=1.32), indicated a general agreement by respondents of the importance of, and the need to expand awareness of the global community by infusing international perspectives into the agricultural education curricula.

According to Moore (1987):

The role of agricultural education in international education has been limited until recent years. This role has expanded and we will have an even more vital role to play in the future--at home and abroad. Helping set the record straight in terms of U.S. involvement in international agriculturally related matters would be a start in the right direction because of so many misconceptions. Perhaps our greatest impact as educators would be to assist in setting the record straight and increasing our own involvement in international education.  
(p. 5)

For agricultural education teachers to assist effectively in setting the record straight through increased international involvement, respondents acknowledged that "the attitudes, values, and commitment of the college faculty are important factors" by rating the statement second highest with a mean score of 4.29.

Henson (1984) has emphasized that "faculty are the key elements in successful internationalization of the curriculum



because they are the individuals determining the quality and content of teaching, research, and extension programs.

Faculty who have direct student contact represent the group that needs assistance to add a global perspective to student learning" (p. 12).

The results of this study indicated that agricultural education teachers have an important responsibility to enhance students' understanding of international issues that affect their lives and bind them to other people and that there are strong reasons for a university to encourage, establish, maintain or develop a commitment to internationalization of its programs, course offerings and activities.

According to John W. Gardner, as reported in Sanders and Ward (1970):

our first step must be to strengthen our institutions of learning through faculty training. Lacking such strength, we can neither engage intelligently in assistance to others nor can we develop the wisdom and judgment essential in fulfilling the almost terrifying responsibilities which we as a nation have acquired. (p. xii)

The President's Commission on Foreign Languages and International Studies (1979) acknowledged the fact that "if our schools are to teach more effectively about other countries and cultures, we must provide our teachers with the knowledge and tools this task requires" (p. 49). The need for commitment to faculty training and development in inter-

national education has also been cited in the literature (Bruce, Podemski, and Anderson, 1991; and Bobbitt and Meaders 1987).

Respondents in this study also acknowledged that "the general university environment in which an individual faculty member works plays an important role in his/her participation in international activities" by rating the statement third with a mean score of 4.28. This supported Henson (1984) when he said that, "if there is a general environment of interest and recognition of the role and importance of international activities and dimensions within the context of the university's programs, such will reflect favorably on the potential participation by faculty" (p. 112).

#### Activities

Analysis of the activities conducted by agricultural education teachers to add international perspectives to the agricultural education curriculum revealed that "encouraging class discussion about other peoples' points of view" was the highest rated statement with a mean score of 3.84. This finding was consistent with King's (1991) findings in his study of "Perceptions regarding the infusion of a global perspective into the curriculum as identified by the faculty of the college of agriculture at Iowa State University". The researcher found that, "of those student activities being used

by faculty to add a global perspective to the curriculum, discussion/debate were rated as the most used activities" (p. 80). In a somewhat related study regarding methods to help youth learn: "The role of volunteer leaders in the 4-H youth development programs in selected counties in Iowa" Akpan (1989) also found that discussion and demonstration tied as the highest rated methods used by 4-H volunteer leaders. The mean score for both items was 4.04.

It was surprising to note that while the overall mean score for the 21 statements in the perceptions regarding internationalization was 3.98, the overall mean score for the activities used to add international perspective was 2.89. This showed that although agricultural education teachers agreed that internationalization of the agricultural education curriculum was a worthwhile idea or concept because of its benefits--nationally and internationally, these teachers actually did little beyond discussion to add international content to the agricultural education curriculum. This finding, therefore, was in agreement with the conclusions of: The National Task Force on Education and the World View, (1981); Southern Governors' Association, (1986); Soedjatmoko, (1984); The Study Commission on Global Education, (1987); Hammig and Rosson, (1989); Schuh, (1988); and Lamy, (1983); that as good as international education is, the programs in international education have not been systematically or

routinely endorsed by school administrators and teaching faculties in the United States.

Although discussion may help in the process of curriculum internationalization, Arum (1987) says that visible commitment in terms of resources, funding, outreach programs, and hiring decisions are the more practical steps toward effective curriculum internationalization.

Other practical steps to adding international perspectives to a university program identified by Jarchow (1993); Aigner, Nelson, and Stimpfl (1992); and Schechter (1990) included overseas or study abroad programs, foreign language instruction, exchange programs, international studies majors and minors, international internships and jobs, curriculum reform with an international focus, foreign students, development projects, international activities at the university, and faculty development in international context.

According to Jarchow (1993), it would be the most practical approach for all institutions committed to international education to include global/international perspectives in their mission statements.

The findings of this study indicated that "establishing a foreign language requirement" was the lowest rated item as an activity to add international perspectives to the agricultural education curriculum with a mean score of 1.98. Respondents

also rated "ability to speak a foreign language" medium as a critical factor in adding international perspectives to the agricultural education curriculum with a mean score of 3.07.

Based on the analysis of the demographic information which indicated that almost 73% of the respondents did not speak a foreign language, the weak consideration given to a foreign language requirement as an important activity to adding international perspectives to the agricultural education curriculum is well understood. Limited in foreign language skills, respondents in this study also rated a foreign language requirement the lowest as a critical factor to adding international perspectives to the agricultural education curriculum (mean=2.71).

According to Crawford (1987), agricultural education faculty are limited in their involvement with international agricultural education because a large number of these faculties do not possess competence in foreign language.

In support of the above statement, Sabella, Kirby and Clary (1992) stated:

Lack of language ability among agricultural education faculty have several negative consequences. First, it greatly limits the number of faculty who might otherwise travel abroad and gain international expertise. Second, faculty pursuing research are not able to read or are likely to misinterpret journal articles and studies written in languages other than English, and third, faculty are less effective when recruiting, advising and directing international student research. (p. 7)

### Factors

The analysis of the factors which agricultural education teachers feel are critical to adding international perspectives to the agricultural education curriculum showed that the highest rated item was "a genuine commitment to internationalization by the Dean of the College of Agriculture" with a mean score of 4.22. This was followed by the statement "available funding for internationalization" which received a mean score of 4.18.

As the literature suggested, the first priority towards internationalizing the agricultural education curriculum is to insure that the institution's governance structure is committed to the goal of incorporating an international perspective into the department's programs and activities (American Association of Colleges for Teacher Education, 1986).

According to the President of Ohio University--Charles Ping, as reported in Henson, Noel, Gillard-Byers and Ingle (1991), commitment is the congruence of rhetoric and resources.

Henson (1984) stressed that the provision of resources, support of faculty including incentives and rewards, and incorporation of statements about internationalization into plans, mission statements, and other documentation are part of the commitment efforts.

King and Fersh (1982) acknowledged administrative support at all levels as part of the needed commitment to set the policy, tone, and example for inclusion of global education into the curriculum.

Burn (1980) drew the following conclusions:

Unless international education is raised to the level of a national commitment, it will continue to be peripheral to many colleges and universities and will be a victim of competition at the campus level and among national organizations. For international education to become a major priority enlisting coordinated support at all levels, institutional and national leadership must recognize and articulate this priority and match rhetoric with resources (p. 155).

Four other statements were rated above 4.0. These statements were: "faculty willingness to change" (mean=4.12), "a genuine commitment to internationalization by the head/chairperson of the department of agricultural education" (mean=4.09), "a genuine commitment to internationalization by the faculty of the department of agricultural education" (mean=4.08), and "linkages with international agencies and institutions" (mean=4.04).

Although many factors may constrain U.S. institutions of higher education from responding to the challenges of curriculum internationalization, the literature cited the willingness of faculty to change as a crucial factor.

According to Munger (1986):

Faculty members trained in traditional disciplines, and conditioned to a reward system based on research

and publications, may have difficulty with the new demands, the breakdown of old boundaries, and the reconfiguration of academe into multidisciplinary, flexible units. Changing this situation will require that faculty be rewarded for new behavior. (p. 4)

As noted earlier, respondents rated "foreign language requirement" the lowest, indicating that it is not a critical factor in adding international perspectives to the agricultural education curriculum.

According to Burn (1980), "English-speaking people in the United States often have an almost arrogant attitude toward other languages. The feeling is that others should and must know English to get along in this world. Unhappily, the requirement to teach and to learn foreign languages in U.S. schools disappears as the need to know them lessens" (p. 55).

#### Hypotheses

It was hypothesized that the perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum do not differ by age of respondents.

The results of a one-way analysis of variance indicated that there was no significant statistical differences between the perceptions of agricultural education teachers when compared with their age. This means that both the older and younger agricultural education teachers had similar



perceptions regarding internationalizing the agricultural education curriculum. The strength of their perceptions for each of the 21 perception statements in Part 1 of the questionnaire could be assessed using the size of the mean perception scores.

The results of this hypothesis are, therefore, not consistent with the Moore, Elliot, and Hossain (1992) study, which found that younger agri-science teachers expressed more favorable attitudes toward making their curriculum more internationally focused than did older teachers" (p. 7). With respect to this hypothesis, the null hypothesis was not rejected at the .05 level.

It was hypothesized that the perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum do not differ by the professional rank of respondents.

A one-way analysis of variance was also computed to determine if there was a significant statistical difference between respondents' perceptions and their professional ranks. The results indicated no significant statistical differences. This means that professional ranks had no significant effect on respondents' perceptions regarding internationalizing the agricultural education curriculum.

The literature has indicated that commitment to internationalization should be the responsibility of every citizen. Although the respondents in this study supported the statement that "agricultural education teachers have an important responsibility to enhance students' understanding of international issues that affect their lives and bind them to other peoples" (mean=4.04), some authors emphasized that senior faculty members and administrators have an added responsibility to internationalize the curriculum through personal involvement and by showing more leadership that would encourage junior faculty members to emulate. The results of this hypothesis, did not support the aforementioned literature. In this case, the null hypothesis was not rejected at the .05 level.

It was hypothesized that the perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum would not differ as a result of travel to a foreign country.

The results of a t-test statistic indicated that a significant statistical difference in perceptions existed between respondents who had traveled to a foreign country and those who had not ( $P=.009$ ). In other words, respondents who had traveled to a foreign country perceived internationalization of the curriculum in a more positive way than those

who had not.

The literature has indicated that no other experience is more beneficial to a faculty or student than travel abroad, or international work/study programs, especially when the experience is in a culture other than the familiar one.

Henson and Noel (1989) study found that the two most important factors stimulating faculty interest in international education were overseas experience and capacity in a second language.

The results of this study indicated that respondents who had traveled to a foreign country favored curriculum internationalization more than those who had not. Therefore, it is assumed that since almost 70% of the respondents in this study had traveled to a foreign country, this exposure had a favorable influence on the high ratings of items in the "perceptions" section of the questionnaire. The null hypothesis was therefore rejected at the .05 alpha level.

It was hypothesized that there is no relationship between respondent's perceptions regarding internationalization of the agricultural education curriculum and years of experience.

To determine if a significant relationship existed between respondents who had few years of teaching experience and those who had many years of experience, Pearson Product-Moment Correlation Coefficient was computed. The results

showed no significant statistical relationship ( $r = -.0163$ ). This means that respondents' years of teaching did not have any significant statistical effect on their perceptions about internationalizing the agricultural education curriculum.

This finding was not consistent with the Moore, Elliot, and Hassain (1992) study, which found that "respondents who had more than 14 years of teaching experience had favorable attitudes toward making their agricultural education curriculum more internationally focused" (p. 7). The null hypothesis was therefore not rejected at the .05 alpha level.

It was hypothesized that there is no relationship between respondents' perceptions regarding internationalization of the agricultural education curriculum and length of visit to a foreign country.

To determine if a significant relationship existed between respondents' perceptions and the length of their visit to a foreign country, Pearson Product-Moment Correlation Coefficient was computed. The results indicated that a weak but significant statistical relationship existed ( $r = .1776$ ,  $p < .05$ ). This means that respondents who spent a longer time in a foreign country tended to have more favorable perceptions regarding internationalization of the curriculum than those who visited for a short time period.

It is assumed that respondents who visited and spent a longer time in a foreign culture or cultures had more

interactions and knowledge of the host country or countries. Knowledge is the key to understanding which could lead to acceptance of the cultural differences that might exist among cultures. By its exposure, foreign visits are an educational experience that could lead to enlightenment and a change in parochial views. A more favorable rating by respondents who have spent a longer time in a foreign country, and a less favorable rating by those who spent less time in a foreign country, therefore, is believed to be a result of longer exposure to those cultures by the respondents.

This finding is in agreement with King's (1991) finding that "the length of time respondents had spent outside the United States and their level of agreement with perceptions regarding internationalization of the curriculum were positively related" (p. 84). The null hypothesis was therefore rejected at the .05 alpha level.

It was hypothesized that there is no relationship between perceptions of agricultural education teachers and the activities conducted by respondents to add international perspectives to the agricultural education curriculum.

To determine if a significant relationship existed between perceptions of respondents and the activities they used to add international perspectives to the agricultural education curriculum, Pearson Product-Moment Correlation Coefficient was computed. The result indicated that a significant statistical

relationship existed ( $r = .2413$ ).

In other words, respondents' perceptions were not the same when compared with the activities they conducted to internationalize the agricultural education curriculum. The overall mean score for the 21 perception statements was 3.98, while the overall mean score for the 24 items in the activities section was 2.89. This indicates that respondents' perceptions of internationalization of the curriculum were more favorable than the activities they conducted to implement the process of curriculum internationalization.

It is assumed that the reason for the high ratings of perception statements by the respondents related to the fact that majority of the agricultural education teachers had traveled to a foreign country and also have had sufficient discussions and information about the concept of curriculum internationalization to influence their level of perception. The low mean scores for the items in the activities conducted to internationalize the curriculum might indicate a lack of commitment to the process by key officials, faculty resistance to change and poor financial support.

It is one thing to have knowledge about a problem, but another to actually do something about it. The process of curriculum internationalization calls for commitment in words and deeds. The null hypothesis was therefore rejected at the .05 alpha level.

It was hypothesized that there is no relationship between respondents' perceptions regarding internationalization of the agricultural education curriculum and the percentage of time allocated for teaching. The Pearson Product-Moment Correlation Coefficient was also computed to determine if a significant statistical relationship existed between the perceptions of respondents regarding internationalization of the agricultural education curriculum and actual teaching of the subject. The result showed no significant statistical relationship (-.0504).

It would be assumed that the perceptions of agricultural education teachers regarding internationalizing the agricultural education curriculum would be more favorable based on the amount or percentage of time they allocated for teaching as supported by Moore, Elliot, and Hossain (1992), but the findings based on this hypothesis were not consistent in that respect. Therefore, the null hypothesis was not rejected at the .05 alpha level.

The last hypothesis of the study hypothesized that age of respondents, years of experience, activities conducted to add international perspectives to the agricultural education curriculum, factors which respondents feel are critical to adding international perspectives to the agricultural education curriculum, and foreign travel will not significantly predict the perceptions of agricultural

education teachers regarding internationalization of the agricultural education curriculum.

The results of the stepwise regression indicated that activities conducted by respondents to add international perspectives to the agricultural education curriculum, factors which respondents feel are critical to adding international perspectives to the agricultural education curriculum, and respondents' travel to a foreign country were significant predictors of respondents' perceptions regarding internationalization of the agricultural education curriculum.

The strongest predictor of agricultural education teachers' perceptions regarding internationalization of the agricultural education curriculum was the category labelled "factors" which accounted for about 17% of the variation in perceptions.

The findings of this study showed that although the majority of respondents favored curriculum internationalization, there were some significant factors which impede efforts in terms of the practical activities to internationalize the curriculum.

While commitment, funding, willingness to change, institutional linkages, incentives and rewards, faculty vision, internships abroad, previous international experience, language skills, membership in international organizations, etc., are significant factors in the process of curriculum



internationalization, Bruce and Carter (1967) emphasized the importance of a work environment which allows productive potential in which employees also find satisfaction and reward in making their optimum contribution.

According to McArdle (1963), the attitude of an agency toward the individual probably has much to do with the attitude of the individual toward his/her job and toward an agency. People who are not genuinely enthusiastic about the work of their organization and the part they have in it, are not likely to create an organization of distinctive character. The kind of work that we do and the kind of surroundings most of us work in are additional contributing factors of some significance. Emphasizing "rewards" as a source of motivation, Rouse and Clawson (1992) pointed out that people are motivated to behave by the strength of their motives, the expectancy of attaining the goal, and perceived incentives.

Internationalization of the agricultural education curriculum is an important and challenging activity which calls for commitment, faculty vision and willingness to change, a productive work environment for faculty growth and development, and a satisfying reward system to encourage maximum participation of the College or Department faculty.

## CHAPTER VI.

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, the summary of the study is presented. This chapter also presents the conclusions, and recommendations based on the findings of the study.

#### Summary

The change that has swept the world in our century has altered the lives of nearly every person in it, or will soon do so. Today, agricultural education is affected by numerous global changes and issues. International changes involve cultural, economic, political, social and scientific issues. The rapidity of these changes require that educational modes be assessed and implemented in configurations possibly not previously conceived.

Unfortunately, according to College and World Affairs, in Harclerod and Kilmartin (1966), "these changes have not yet produced anywhere in corresponding magnitude the necessary adaptations in education. There has been a fateful lag between the circumstances of life in which men and women must live and their inner preparation to do so wisely and effectively (p. 4).

The literature indicates that United States' agriculture has increasingly become part of an international food and agriculture system. In addition, United States' international

interdependence has increased through the growth in international trade.

For today's agricultural education graduates, who are preparing to enter the 21st century, little seems more certain than the quickening impact on their lives of the rest of the world. Some of the issues agricultural education graduates will be facing are approachable only on a global basis. Even if we leave aside the economic and political concerns, as tied as they are to forces beyond the national borders, the issue of serious environmental degradation that will face humanity generally cry out for international approaches. The serious issues of disease control such as AIDS, call for a global perspective and international measures. A global perspective will also be required in any serious attack on the problems that illegal drugs present to our society (Dibiaggio, 1988).

For the above reasons, internationalization of the agricultural education curriculum should be viewed a priority and a means to meeting both the changing world agricultural needs and in developing enlightened citizens for the kind of world we will face in the 21st century. There is need, therefore, to study the perceptions of agricultural education teachers regarding curriculum internationalization.

The purpose of the study was to examine the perceptions held by agricultural education teachers in Departments of Agricultural Education in the United States' institutions of

higher education regarding internationalization of the agricultural education curriculum. A secondary purpose was to identify the activities conducted by agriculture education teachers to add international perspectives to the agricultural education curriculum.

The specific objectives of the study were:

1. Examine the perceptions of U.S. agricultural education teachers regarding internationalization of the curriculum in agricultural education.
2. Identify activities conducted by agricultural education teachers to add international perspective to the agricultural education curriculum.
3. Identify the factors which agricultural education teachers feel are critical to adding an international perspective to the agricultural education curriculum.
4. Identify demographic characteristics of agricultural education teachers.
5. Compare selected variables to the demographic characteristics of agricultural education teachers.

The population for this study included all the agriculture education teachers in the United States institutions of higher education. Of the total 360 U.S. agriculture education teachers listed in the Directory of Agricultural Education Department (1993-94) and the Agricultural Educators Directory (1992), a sample of 184

respondents provided the useable data for this study.

The instrument used for data collection for this study was a questionnaire. The questionnaire items were divided into four parts based on the objectives of the study.

Part one was designed to examine the perceptions of U.S. agricultural education teachers regarding internationalization of the agricultural education curriculum. Part two sought to identify activities conducted by agricultural education teachers to add an international perspective to the agricultural education curriculum. Part three dealt with the factors which agricultural education teachers feel are critical to adding an international perspective to the agricultural education curriculum. Part four identified respondents' demographic characteristics.

To study the perceptions of U.S. agricultural education teachers regarding internationalization of the agricultural education curriculum, the respondents were asked to choose one of the five responses provided by circling the number attached to the choice.

The responses and the numbers attached were: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. In part two, the responses and the numbers attached were: (1) never, (2) rarely, (3) occasionally, (4) frequently, and (5) often. The rating scale for the factors which agriculture education teachers feel are critical to

adding an international perspective to the agricultural education curriculum was: (1) not important, (2) of little importance, (3) somewhat important, (4) important, and (5) very important.

There were two open-ended items at the end of part 2 and three open-ended items at the end of part 3 in which the respondents were asked to list, respectively: the activities conducted by agricultural education teachers to add an international perspective to the agricultural education curriculum; and the factors which agriculture education teachers feel are critical to adding an international perspective to the agricultural education curriculum that were not covered on the instrument. The questionnaire consisted of 65 items.

The fourth part of the questionnaire was designed to collect demographic information in which respondents were to indicate their sex, age group, present rank, years taught in college or university, percentage of present time allocated for each responsibility performed, their ethnic group, their citizenship, countries they have visited other than U.S., length of visit, purpose of visit, and the number of languages they can speak other than English. The questionnaires were sent to and collected from the respondents by mail. A self-addressed stamped envelope was included for the return of the completed questionnaires.

Iowa State University computer facilities were used for statistical analysis of the data in this study. The data were analyzed using the computer program known as Statistical Package for Social Sciences (SPSS) (Norusis, 1983).

Data were analyzed and summarized by calculating means, standard deviations, frequencies, and percentages. A one-way analysis of variance, a t-test, and Pearson Product-Moment Correlation Coefficient were computed to test the hypotheses of the study and compare selected variables to the demographic characteristics of agricultural education teachers. The alpha level was established at the .05 level.

The following were the hypotheses of the study:

1. The perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum will not differ by age of respondents.
2. The perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum will not differ by respondents' rank.
3. There is no significant statistical difference between respondents' perceptions regarding internationalization of the agricultural education curriculum and international travel.

4. There is no significant statistical relationship between respondents' perceptions regarding internationalization of the agricultural education curriculum and years of experience.
5. There is no significant statistical relationship between respondents' perceptions regarding internationalization of the agricultural education curriculum and length of visit to foreign countries.
6. There is no significant statistical relationship between perceptions of agricultural education teachers and the activities conducted by respondents to add international perspectives to the agricultural education curriculum.
7. There is no significant statistical relationship between respondents' perceptions regarding internationalization of the agricultural education curriculum and the percentage of time allocated for teaching.
8. The age of respondents, years of experience, activities conducted to add international perspectives to the agricultural education curriculum, factors which respondents feel are critical to adding international perspectives to the agricultural education curriculum, and foreign travel would not significantly predict the perceptions of agricultural education teachers regarding internationalization of the agricultural education curriculum.



### Summary of Findings

In this section, the major findings of the study are summarized. The information presented in this section is from the data collected from the 184 agricultural education teachers who provided the usable data for this study.

The analysis of the demographic information revealed that the majority of the respondents (91.3%) were male, 83.1% of the respondents were between 30 and 59 years old, 82% of respondents were "White Americans", and 98.4% of respondents were United States citizens. Majority of the respondents (68%) were associate or full professors, and 78.6% of the respondents have taught between 1 and 25 years in colleges or universities.

About 89% of the respondents allocated between 5 and 100% of their time for teaching, 46.6% allocated between 5 and 100% of their time for research, 31.5% allocated between 5 and 100% of their time for administration, 32.6% allocated between 5 and 100% of their time for extension, and 20.8% allocated between 5 and 100% of their time for other responsibilities.

About 70% of the respondents had traveled to a foreign country. Twenty-seven percent of the respondents spoke at least one foreign language.

Of those respondents who traveled to a foreign country, 17.4% visited Africa, 97% of their trips were professionally related. Of the 25.5% respondents who traveled to Asia, 96%

of their trips were professionally related. Of the 35.3% respondents who traveled to Europe, 77% of their trips were professionally related. Of the 14.1% of respondents who traveled to Canada, 44% of their trips were professionally related. Of the 5.4% respondents who traveled to Australia, 70% of their trips were professionally related; and of the 41.8% respondents who traveled to Latin America, 68% of their trips were professionally related.

To examine the perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum, 21 statements were rated on a Likert-type scale. The highest rated statement in this section was "the total college curriculum should reflect a respect for and a knowledge of the global community" with a mean score of 4.33. Eleven other perception statements received mean scores of 4.00 and above.

The lowest rated perception statement was, "U.S. institutions of higher education are placing too much emphasis on international education at the expense of local and national research priorities" (mean=2.24).

To identify those activities conducted by agricultural education teachers in U.S. institutions of higher education to add international perspectives to the agricultural education curriculum, 24 statements were rated on a Likert-type scale.

The highest rated items in this section were "Encouraging class discussions about other peoples' points of view" (mean=3.84), and "providing examples from diverse cultures" (mean=3.53). The lowest rated statement in the activities section was "establishing a foreign language requirement" (mean=1.98).

To identify the factors which agricultural education teachers feel are critical to adding international perspectives to the agricultural education curriculum, 20 statements were rated on a Likert-type scale. Six statements were rated above 4.0. The highest rated statement was: "a genuine commitment to internationalization by the Dean of the College of Agriculture" (mean=4.22).

Respondents rated six factor statements low. The lowest rated item in this section was: "foreign language requirement" (mean=2.71).

#### Summary of Hypotheses Testing

It was hypothesized that the perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum do not differ by age of respondents.

The results of a one-way analysis of variance indicated no significant statistical differences between the perceptions of younger and older agricultural education teachers. The

null hypothesis was therefore not rejected at the .05 level.

It was hypothesized that the perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum do not differ by professional rank of respondents.

A one-way analysis of variance test indicated no significant statistical differences between the perceptions of agricultural education teachers and their ranks. The computed F-Statistic was 1.54 with 3 and 178 degrees of freedom. The probability level was 0.2064. The null hypothesis was therefore not rejected at the .05 level.

It was hypothesized that the perceptions of agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum would not differ with international travel.

The results of a computed t-test statistic indicated a significant statistical difference in perceptions regarding internationalization of the agricultural education curriculum existed between respondents who had visited a foreign country and those who had not ( $P=.009$ ). This led to the rejection of the null hypothesis at the .05 alpha level.

It was hypothesized that no relationship existed between respondents' perceptions regarding internationalization of agricultural education curriculum and their years of experience.

A computed Pearson Product-Moment Correlation Coefficient showed no significant correlation ( $r = -.0163$ ). The null hypothesis was therefore not rejected at the .05 alpha level.

It was hypothesized that no relationship existed between respondents' perceptions regarding internationalization of the agricultural education curriculum and the length of visits to a foreign country.

The results of the Pearson Product-Moment Correlation Coefficient showed that a weak but significant correlation existed ( $r = .1776$ ,  $p < .05$ ). This means that respondents who stayed for a longer time in a foreign country tended to have more positive perceptions regarding internationalization of the curriculum than those who spent a shorter time period. The null hypothesis was therefore rejected at the .05 alpha level.

It was hypothesized that no relationship existed between the perceptions of agricultural education teachers and the activities conducted by respondents to add international perspectives to the agricultural education curriculum.

The results of the Pearson Product-Moment Correlation Coefficient indicated that a significant correlation existed between perceptions and activities ( $r = .2413$ ). The null hypothesis was therefore rejected at the .05 alpha level.

It was hypothesized that no relationship existed between respondents' perceptions regarding internationalization of

the agricultural education curriculum and the percentage of time allocated for teaching.

The results of Pearson Product-Moment Correlation coefficient test showed no significant relationship between the perceptions of respondents regarding internationalization of the agriculture education curriculum and actual teaching of the subject (-.0504). The null hypothesis was therefore not rejected at the .05 alpha level.

It was hypothesized that age of respondents, years of experience, activities conducted to add international perspectives to the agricultural education curriculum, factors which respondents feel are critical to adding international perspectives to the agricultural education curriculum, and international travel would not significantly predict the perceptions of agricultural education teachers regarding internationalization of the agricultural education curriculum.

The results of the stepwise regression indicated that activities conducted by respondents to add international perspectives to the agricultural education curriculum, factors which respondents feel are critical to adding international perspectives to the agricultural education curriculum, and respondents' travel to a foreign country were significant predictors of respondents' perceptions regarding internationalization of the agricultural education curriculum.

The strongest predictor of agricultural education teachers' perceptions regarding internationalization of the agricultural education curriculum was the category "factors" which accounted for about 17 percent of the variation in the perceptions (Reported in chapter 4, p. 113).

### Conclusions

The specific objectives of the study were to examine the perceptions of U.S. agriculture education teachers regarding internationalization of the agricultural education curriculum, to identify activities conducted by agricultural education teachers to add international perspectives to the agricultural education curriculum, and to identify the factors which agriculture education teachers feel are critical to adding international perspectives to the agricultural education curriculum.

Based on the results of the study, the following conclusions were drawn:

The high ratings of perception statements regarding internationalization by respondents in this study indicated a general favorable agreement by respondents of the need to internationalize the agricultural education curriculum.

Respondents in this study agreed that international issues will become more important to U.S. citizens in the next ten to twenty years and that agricultural education teachers

have an important responsibility to enhance students' understanding of international issues that affect their lives and bind them to other people.

Respondents rated the statement "the total college curriculum should reflect a respect for and a knowledge of the global community" the highest item with a mean score of 4.33. They also rated the statement "there is no need for continued effort in helping students develop a global perspective in agricultural education because they will get this elsewhere in the university" the lowest item with a mean score of 1.92. Agricultural education teachers in this study, therefore, have indicated their awareness of the importance of international education and the need for such perspectives in the agricultural education curriculum.

The results of this study indicated that the majority of respondents were occasionally or rarely using almost all the 24 items in the activities conducted to add an international perspective to the agricultural education curriculum. Only two statements "encouraging class discussions about other peoples' points of view", and "providing examples from diverse cultures", received mean scores above 3.50. The low ratings of statements in this section indicated that agricultural education teachers were not doing much beyond discussion to internationalize their departments' programs.



The high ratings of the statements "a genuine commitment to internationalization by the dean of the college of agriculture" (mean=4.22), "available funding for internationalization" (mean=4.18), and "faculty willingness to change" (mean=4.12), indicated respondents' agreement about the critical nature of these factors to internationalization of the agricultural education curriculum.

The fact that agriculture education teachers' perceptions were generally in favor of internationalization, and that the respondents rated "commitment", "funding", and "faculty willingness to change", as important factors in favor of curriculum internationalization indicated inadequate environment, commitment, support, funding and faculty willingness to change, as being the constraining factors to internationalize the agricultural education curriculum.

It was further concluded that the perceptions of agriculture education teachers in U.S. institutions of higher education favored curriculum internationalization if respondents' had traveled to a foreign country.

Agricultural education teachers who had spent a longer time in a foreign country tended to have more favorable perceptions about curriculum internationalization than those who had visited a foreign country for a short time period.

There was a statistically significant but low positive correlation between respondents' overall perceptions scores

and the overall scores on activities conducted by respondents to add international perspective to the agricultural education curriculum.

The strongest predictor of agricultural education teachers' perceptions regarding internationalization of the agricultural education curriculum was "factors" which accounted for about 17 percent of the variation in perceptions.

#### Recommendations

The following recommendations were made based on the conclusions drawn from the findings of this study.

1. The findings of this study indicated that agricultural education teachers perceived that they have important responsibilities to enhance students' understanding of international issues that affect their lives and bind them to other people. It is, therefore, recommended that agricultural education departments provide opportunities for faculty members to develop awareness of the culture, economic, and political events in other parts of the world.
2. The findings of this study also indicated that respondents perceived that international issues will become more important to U.S. citizens in the next ten to twenty years. It is, therefore, recommended that agricultural education departments provide opportunities for students and citizens

of the United States to develop a knowledge base about the dynamics and interdependencies of nations throughout the world.

3. The findings of this study indicated that a genuine commitment by the Dean of the College of Agriculture and the commitment of faculty in the Department of Agricultural Education are critical factors in adding international perspectives to the agricultural education curriculum. It is therefore recommended that College of Agriculture deans, department heads, and key leaders in the agricultural education departments should indicate their commitment in words and deeds, by providing funding and encouraging other faculty members through a reward system to participate in departmental international activities.
4. The findings of this study indicated that class discussions about other peoples' points of view was the most used activity to infuse international perspectives into the agricultural education curriculum. A more practical approach should be taken to internationalize the agricultural education curriculum by encouraging in-service or work/study programs for faculty and students in a foreign country.
5. The length of foreign visits were positively correlated with the respondents' perceptions regarding curriculum internationalization; therefore, an extended time period

is recommended for faculty and students who choose to attend work/study abroad programs.

6. Respondents in this study identified linkages with international agencies and institutions as a critical factor in internationalization of the agricultural education curriculum. It is recommended, therefore, that U.S. Agricultural Education departments should establish linkages with international agricultural institutions.
7. The results of this study should be made available to administrators and faculty members responsible for curriculum planning, financial allocations, and teaching of agricultural education programs, and also to the general public with interest in this area.
8. The strongest predictor of agricultural education teachers' perceptions regarding internationalization of the agricultural education curriculum was category named "factors" (Refer to chapter 4, p. 113). It is therefore recommended that efforts be made by the Departments of Agricultural Education to provide the needed factors such as commitment, funding, rewards and incentives to motivate faculty interest and participation in the curriculum internationalization efforts.

### Recommendations for Future Research

1. This study was limited to agricultural education teachers in U.S. institutions of higher education. A broader study that would involve agricultural administrators in government and private sectors, including agricultural industries is, therefore, recommended.
2. The need for an educational program should not be established solely on teachers' perspectives. It is, therefore, recommended that a similar study be conducted of both the graduate and undergraduate students to examine their perspectives.
3. The results of this study revealed that respondents rated 12 activity statements low, and were neutral in 10 other activities. A future study is recommended using the same instrument after five years. The data collected should be compared to the findings of this study to determine if there is a change in the activities used by agricultural education teachers in U.S. institutions of higher education to add international perspectives to the agricultural education curriculum.

### Implications and Educational Significance of the Study

The purpose of the study was to examine the perceptions held by agriculture education teachers in Departments of

Agricultural Education in the United States' institutions of higher education regarding internationalization of the agricultural education curriculum. A secondary purpose was to identify the activities conducted by agriculture education teachers to add international perspectives to the agricultural education curriculum.

This study has provided important information about the perceptions held by agricultural education teachers in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum, the activities conducted by agricultural education teachers to add an international perspective into the agricultural education curriculum, and the factors which agricultural education teachers feel are critical to adding international perspectives to the agricultural education curriculum.

The results of this study may provide the basis for departments of agricultural education in planning to infuse international perspectives into their programs. It may also provide the basis for effective training of faculty members for this task.

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**APPENDIX A. HUMAN SUBJECTS REVIEW APPROVAL FORM  
COMMITTEE APPROVAL**

Last Name of Principal Investigator AKPAN

## Checklist for Attachments and Time Schedule

The following are attached (please check):

12. ☒ Letter or written statement to subjects indicating clearly:
- a) purpose of the research
  - b) the use of any identifier codes (names, #'s), how they will be used, and when they will be removed (see Item 17)
  - c) an estimate of time needed for participation in the research and the place
  - d) if applicable, location of the research activity
  - e) how you will ensure confidentiality
  - f) in a longitudinal study, note when and how you will contact subjects later
  - g) participation is voluntary; nonparticipation will not affect evaluations of the subject
13. ☐ Consent form (if applicable)
14. ☐ Letter of approval for research from cooperating organizations or institutions (if applicable)
15. ☒ Data-gathering instruments

## 16. Anticipated dates for contact with subjects:

First Contact

Last Contact

02- 15- 94

Month / Day / Year

04 15 94

Month / Day / Year

## 17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

04 30 94

Month / Day / Year

## 18. Signature of Departmental Executive Officer

Date

Department or Administrative Unit

Richard K. Carter 2-7-94 Ag Eds

## 19. Decision of the University Human Subjects Review Committee:

☒ Project Approved      ☐ Project Not Approved      ☐ No Action Required

Patricia M. Keith

Name of Committee Chairperson

2/10/94

Date

PM Keith

Signature of Committee Chairperson

**APPENDIX B. COVER LETTER AND QUESTIONNAIRE**

March 23, 1994.

Dear Agricultural Educator:

The issue of infusing international perspectives into American educational programs has gained some attention within the past few years. Various groups in society such as businesses, universities, parents, students, and governments have realized the need to address the issue of international education. This need has placed some pressure on educational institutions in recent years. Many authors suggest that the pressure on educational institutions to become involved in international education will continue in the years ahead as the nation, its states and communities struggle to regain competitiveness in the global economy. As a critical resource for regional, state, and local communities, agricultural institutions cannot afford to lag behind in this effort. We need to know your opinion.

Enclosed is a questionnaire designed to study the perceptions of agricultural educators in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum. The purpose of this study is to identify the activities that agricultural educators have conducted and the factors they consider very important in this process.

Please complete and return the enclosed questionnaire in the stamped, addressed envelope on or before April 15, 1994. The information supplied will be held strictly confidential. The results of this study will not report individual responses. Only a summary of group data will be reported. Questionnaires are coded to help follow-up contact of non-respondents. Upon receipt of the questionnaire all code numbers will be removed. All instruments will be destroyed following analysis of the group data. The information you provide will be used to complete a dissertation and will help other educators better understand, plan and implement a more globally focused agricultural education program. The questionnaire takes about 30 minutes to complete. Your participation is voluntary. If you decide not to participate in the study, please return the blank questionnaire to avoid further contact. We appreciate your cooperation in this important study.

Sincerely,

Michael J. Akpan  
Graduate Student  
(515) 296-8249

Robert A. Martin  
Professor  
(515) 294-0896

**PART I. PERCEPTIONS REGARDING INTERNATIONALIZATION OF THE  
CURRICULUM IN AGRICULTURE**

**Instructions:**

The following statements describe possible ways to infuse an international perspective into the agriculture curriculum. Please read the statements and indicate how much you agree or disagree with each statement by circling an appropriate option. Use the following rating scale:

<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neutral</u>	<u>Agree</u>	<u>Strongly Agree</u>
1	2	3	4	5

Please circle your response

- |     |   |           |
|-----|---|-----------|
| 01. | Internationalization of the general curriculum should be a priority function of all U.S. institutions of higher education.  | 1 2 3 4 5 |
| 02. | The current emphasis on Western civilization and culture in the curriculum at U.S. universities should not be diluted by adding international perspectives.                   | 1 2 3 4 5 |
| 03. | The total college curriculum should reflect a respect for and a knowledge of the global community.  | 1 2 3 4 5 |
| 04. | International education is good for the U.S. agriculture economy.   | 1 2 3 4 5 |
| 05. | International education should be actively promoted by students, faculty and administrators.  | 1 2 3 4 5 |
| 06. | There are strong reasons for a university to encourage, establish, maintain or develop a commitment to internationalization of its programs, course offerings and activities. | 1 2 3 4 5 |
| 07. | United States citizens should increase their knowledge of other countries' agricultural systems.  | 1 2 3 4 5 |
| 08. | Internationalization of the curriculum will help U. S. citizens to gain a greater understanding of the interdependence among nations.   | 1 2 3 4 5 |



<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
1	2	3	4	5

Please circle your response

09. Agricultural educators have an important responsibility to enhance students' understanding of international issues that affect their lives and bind them to other people. 1 2 3 4 5
10. The attitudes, values and commitment of the college faculty are important factors in trying to integrate global perspectives into the agricultural education curriculum. 1 2 3 4 5
11. Department heads and faculty in U.S. colleges of agriculture should be genuinely committed to promoting international education. 1 2 3 4 5
12. The general university environment in which an individual faculty member works plays an important role in his/her participation in international activities. 1 2 3 4 5
13. International issues will become more important to U.S. citizens in the next ten to twenty years. 1 2 3 4 5
14. Faculty should encourage their students to develop an attitude of appreciation and understanding of their role as citizens of the world. 1 2 3 4 5
15. There is no need for continued effort in helping students develop a global perspective in agricultural education because they will get this elsewhere in the university. 1 2 3 4 5
16. In the context of United States' participation in the world community, it is imperative to employ agricultural education faculty with an international perspective. 1 2 3 4 5
17. Agricultural education faculty need a background of international knowledge in order to help students develop attitudes and practices that will be more compatible on a global scale. 1 2 3 4 5

<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neutral</u>	<u>Agree</u>	<u>Strongly Agree</u>
1	2	3	4	5

Please circle your response

18. Agricultural educators should try to give examples from other countries' agricultural production systems along with the U.S. system. 1 2 3 4 5
19. International agricultural education programs should be offered to help U.S. students understand current international market trends. 1 2 3 4 5
20. Opportunities to develop a knowledge base about the dynamics and interdependencies of nations throughout the world should be provided to students not only by the college of agriculture but throughout a university-wide program. 1 2 3 4 5
21. U.S. institutions of higher education are placing too much emphasis on international education at the expense of local and national research priorities. 1 2 3 4 5

**PART II. ACTIVITIES CONDUCTED BY AGRICULTURAL EDUCATORS TO ADD INTERNATIONAL PERSPECTIVES TO THE AGRICULTURAL EDUCATION CURRICULUM**

**Instructions:**

This section of the questionnaire is designed to collect information regarding the activities you or your department are/is undertaking to infuse international perspectives into the curriculum of agricultural education. Using the following scale, please rate the extent each activity is performed.

<u>Never</u>	<u>Rarely</u>	<u>Occasionally</u>	<u>Frequently</u>	<u>Often</u>
1	2	3	4	5

Please circle your response

- |     |   |           |
|-----|---|-----------|
| 01. | Incorporating courses that build awareness of trends affecting the future of agriculture worldwide. | 1 2 3 4 5 |
| 02. | Inviting guest speakers to share perspectives on global issues.                                     | 1 2 3 4 5 |
| 03. | Incorporating international students' perspectives into class activities.                           | 1 2 3 4 5 |
| 04. | Using educational materials that reflect an international perspective.                              | 1 2 3 4 5 |
| 05. | Providing examples from diverse cultures.   | 1 2 3 4 5 |
| 06. | Encouraging class discussions about other peoples' points of view.                                  | 1 2 3 4 5 |
| 07. | Including international issues and material in agriculture education curriculum.                    | 1 2 3 4 5 |
| 08. | Providing exchange programs for U.S. agriculture education students in foreign countries.           | 1 2 3 4 5 |
| 09. | Offering study or internships abroad opportunities for U.S. students.                               | 1 2 3 4 5 |
| 10. | Establishing a foreign language requirement.  | 1 2 3 4 5 |
| 11. | Supporting faculty exchanges abroad.  | 1 2 3 4 5 |
| 12. | Encouraging research on international topics.   | 1 2 3 4 5 |
| 13. | Establishing cooperative relationships with institutions in other countries.                        | 1 2 3 4 5 |
| 14. | Participating in international development projects and activities.                                 | 1 2 3 4 5 |
| 15. | Providing faculty international development opportunities.  | 1 2 3 4 5 |

<u>Never</u>	<u>Rarely</u>	<u>Occasionally</u>	<u>Frequently</u>	<u>Often</u>
1	2	3	4	5

Please circle your response

- |     |  |           |
|-----|--|-----------|
| 16. | Requiring all agricultural students to take at least one general education course that heightens awareness of issues related to international agriculture. | 1 2 3 4 5 |
| 17. | Hiring international educators as faculty and administrators in the college of agriculture.  | 1 2 3 4 5 |
| 18. | Providing funds for international programs.  | 1 2 3 4 5 |
| 19. | Awarding financial aid to support the recruitment of international students into agricultural education programs.  | 1 2 3 4 5 |
| 20. | Bringing distinguished educators from other countries to campus to serve as visiting scholars.   | 1 2 3 4 5 |
| 21. | Providing special services to agricultural education students through workshops.   | 1 2 3 4 5 |
| 22. | Keeping in contact with former students who have returned to their countries.  | 1 2 3 4 5 |
| 23. | Incorporating suggestions from former international students into the agricultural education curriculum.   | 1 2 3 4 5 |
| 24. | Attending seminars, colloquia, meetings, etc. on international agricultural development.   | 1 2 3 4 5 |
| 25. | Other (please specify) _____   |           |
| 26. | Other (please specify) _____   |           |

**PART III. FACTORS THAT MAY INFLUENCE ADDING AN INTERNATIONAL PERSPECTIVE TO THE AGRICULTURAL EDUCATION CURRICULUM**

**Instructions:**

Please read the following statements and indicate by circling the option that best describes the importance of each statement to adding an international perspective to the agricultural education curriculum in your university. Use the following rating scale.

<u>Not</u> <u>Important</u>	<u>Of Little</u> <u>Importance</u>	<u>Somewhat</u> <u>Important</u>	<u>Important</u>	<u>Very</u> <u>Important</u>
1	2	3	4	5

Please circle your response

- |   |           |
|---|-----------|
| 01. A genuine commitment to internationalization by the Dean of the College of Agriculture.                           | 1 2 3 4 5 |
| 02. A genuine commitment to internationalization by the Head/Chairperson of the Department of Agricultural Education. | 1 2 3 4 5 |
| 03. A genuine commitment to internationalization by the Faculty of the Department of Agricultural Education.          | 1 2 3 4 5 |
| 04. Faculty vision which includes an emphasis on international agriculture.   | 1 2 3 4 5 |
| 05. Faculty willingness to change.  | 1 2 3 4 5 |
| 06. Faculty incentives and rewards based on international experience/activities.                                      | 1 2 3 4 5 |
| 07. Available funding for internationalization.   | 1 2 3 4 5 |
| 08. Legislative support.  | 1 2 3 4 5 |
| 09. Private sector support.   | 1 2 3 4 5 |
| 10. Providing financial aid to foreign students/scholars.   | 1 2 3 4 5 |
| 11. Study/work internships abroad.  | 1 2 3 4 5 |

<u>Not</u> <u>Important</u>	<u>Of Little</u> <u>Importance</u>	<u>Somewhat</u> <u>Important</u>	<u>Important</u>	<u>Very</u> <u>Important</u>
1	2	3	4	5

Please circle your response

- |   |           |
|---|-----------|
| 12. Foreign language requirement.                               | 1 2 3 4 5 |
| 13. Participation in technical assistance projects/contracts.   | 1 2 3 4 5 |
| 14. Encouraging research in international agricultural issues.  | 1 2 3 4 5 |
| 15. Linkages with international agencies and institutions.      | 1 2 3 4 5 |
| 16. International awareness workshops for students and faculty. | 1 2 3 4 5 |
| 17. Ability to speak a foreign language.                        | 1 2 3 4 5 |
| 18. Previous international experience.                          | 1 2 3 4 5 |
| 19. Membership in international organizations.                  | 1 2 3 4 5 |
| 20. Contact with former students from foreign countries.        | 1 2 3 4 5 |
| 21. Other (please specify)_____                                 |           |
| 22. Other (please specify)_____                                 |           |
| 23. Other (please specify)_____                                 |           |

#### PART IV. DEMOGRAPHIC INFORMATION

##### Directions:

Please circle the letter next to the response which best describes you or fill in the spaces with appropriate responses.

01. Your gender is:  
A. Male  
B. Female
02. Your age group is (in years):  
A. 19 or under  
B. 20-29  
C. 30-39  
D. 40-49  
E. 50-59  
F. 60 or over
03. Your present rank  
A. Assistant Professor  
B. Associate Professor  
C. Full Professor  
D. Instructor  
E. Other (please specify) \_\_\_\_\_
04. Years taught in college or university \_\_\_\_\_
05. Indicate the percentage of your present position allocated for each of the following:  
A. \_\_\_\_\_ Teaching  
B. \_\_\_\_\_ Research  
C. \_\_\_\_\_ Administration  
D. \_\_\_\_\_ Extension  
E. \_\_\_\_\_ Other (please specify) \_\_\_\_\_
06. To which group do you belong?  
A. \_\_\_\_\_ Native American  
B. \_\_\_\_\_ African American  
C. \_\_\_\_\_ Asian American  
D. \_\_\_\_\_ Alaskan native  
E. \_\_\_\_\_ White American  
F. \_\_\_\_\_ Hispanic American  
G. \_\_\_\_\_ Other (please specify) \_\_\_\_\_
07. Are you a...  
A. U.S. citizen  
B. U.S. permanent resident  
C. Other (please specify) \_\_\_\_\_
08. Have you ever spent time in another country? Yes---No---.  
If yes, please fill in the space below the country you have lived in or visited, and indicate how much time you spent there, and how that time was spent (i.e. vacation, study, exchange, work, etc.).

Country	Length of stay	How you spent your time
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

09. How many languages do you speak other than English?\_\_\_\_\_

List:\_\_\_\_\_

THANK YOU

Please return the completed questionnaire in the enclosed envelope. We appreciate your participation in this study.



**APPENDIX C. FOLLOW-UP LETTERS**

May 16, 1994

Dear Agricultural Educator:

Three weeks ago we sent a questionnaire designed to study the perceptions of agricultural educators in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum. Many people have responded to the questionnaire.

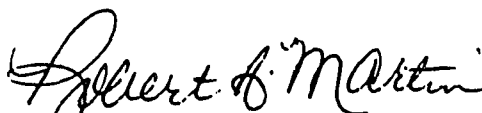
However, we have not yet received your questionnaire. Please complete and return the questionnaire in the enclosed, self-stamped addressed envelope on or before May 30, 1994. The questionnaire requires about 30 minutes to complete. If you decide not to participate in the study, please return the blank questionnaire to avoid further contact. Please disregard this letter if your completed questionnaire has already been mailed to us. We count on your cooperation and input into this important study.

Thank you for your cooperation.

Sincerely,



Michael J. Akpan  
Graduate Student



Robert A. Martin  
Professor

kmv

Enclosures

June 10, 1994

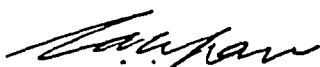
Dear Agricultural Educator:


About two months ago we sent you a questionnaire designed to study the perceptions of agricultural educators in U.S. institutions of higher education regarding internationalization of the agricultural education curriculum. We also sent you a reminder letter last month but we still haven't heard from you.

Please we still need your input in this important study. A new questionnaire is hereby included in case you misplaced the first copy. Please complete and return the questionnaire in the enclosed, stamped envelope on or before June 30, 1994. If your completed questionnaire has already been mailed to us, please disregard this follow-up letter.

Thank you for your cooperation.

Sincerely,

  
Michael J. Akpan  
Graduate Student

  
Robert A. Martin  
Professor